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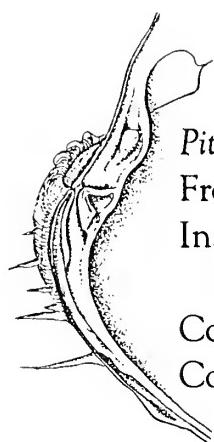
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Supplement 2 (1990)

Additions to the Panamic Province Bivalve (Mollusca) Literature 1971 to 1990 /



Carol Skoglund



Pitar (Hysteroconcha) lupanaria (Lesson, 1830)

Front cover: exterior of left valve

Inside cover: detail showing dentition

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Vol. XXII (Suppl. 2 to 1990)

THE FESTIVUS

Page i

TABLE OF CONTENTS

Class BIVALVIA

Subclass PROTOBRANCHIA

Order SOLEMYOIDA

Suborder SOLEMYINA

Superfamily SOLEMYACEA

Family SOLEMYIDAE

Genus *Solemya*

2

Family ACIARACIDAE

Genus *Acharax*

2

Suborder NUCINELLINA

Superfamily MANZANELLACEA

Family NUCINELLIDAE

Genus *Nucinella*

3

Order NUCULOIDEA

Superfamily NUCULACEA

Family NUCULIDAE

Subfamily NUCULINAE

Genus *Nucula*

3

Subfamily NUCULOMINAE

Genus *Ennucula*

3

Superfamily NUCULANACEA

Family NUCULANIDAE

Subfamily NUCULANINAE

Genus *Nuculana*

4

Genus *Jupiteria*

4

Genus *Saccella*

4

Genus *Adrana*

4

Subfamily LEDELLINAE

Genus *Ledella*

5

Genus *Ledellina*

5

Subfamily SPINULINAE

Genus *Bathyspinula*

5

Family SAREPTIDAE

Subfamily SAREPTINAE

Genus *Sarepta*

5

Subfamily YOLDIHINAE

Genus *Megayoldia*

5

Subfamily YOLDIELLINAE

Genus *Yoldiella*

5

Family TINDARIIDAE

Genus *Tindaria*

5

Family NEILONELLIDAE

Genus *Neilonella*

6

Family MALLETHIIDAE

Genus *Malletia*

6

Genus *Minormalletia*

6

Subclass AUTOBRANCHIA

Superorder PRIONODONTA

Order ARCOIDA

Superfamily ARCACEA

Family ARCIDAE

Subfamily ARCINAE

Genus *Arca*

6

Genus *Barbatia*

6

Genus *Fugleria*

7

Subfamily ANADARINAE

Genus *Anadara*

7

Genus *Bathyarca*

8

Genus *Grandiarca*

8

Genus *Lunarca*

8

Subfamily STRIARCINAE

Genus *Arcopsis*

8

Family NOETIIDAE

Subfamily NOETIINAE

Genus *Noetia*

8

Superfamily LIMOPSACEA

Family LIMOPSIDAE

Genus *Limopsis*

9

Superfamily GLYCYMERIDACEA

Family GLYCYMERIDIDAE

Genus *Glycymeris*

9

Genus *Tucetona*

9

Family PHILOBRYIDAE

Genus *Philobrya*

9

Superorder ISOFILIBRANCHIA

Order MYTILOIDA

Superfamily MYTILACEA

Family MYTILIDAE

Subfamily MYTILINAE

Genus *Mytilus*

9

Genus *Brachidontes*

10

Genus *Choromytilus*

10

Genus *Mytella*

10

Genus *Septifer*

10

Subfamily CRENELINAE

Genus *Crenella*

10

Genus *Gregariella*

11

Genus *Lioberus*

11

Genus *Megacrenella*

11

Subfamily LITHOPHAGINAE

Genus *Lithophaga*

11

Genus *Adula*

12

Genus *Botula*

12

Genus *Leiosolenus*

12



Subfamily MODIOLINAE		Superfamily DIMYACEA	
Genus <i>Modiolus</i>	12	Family DIMYIDAE	
Genus <i>Amygdalum</i>	12	Genus <i>Dimya</i>	15
Genus <i>Benthomodiolus</i>	12	Superfamily PLICATULACEA	
Genus <i>Dacrydium</i>	13	Family PLICATULIDAE	
Subfamily BATHYMODIOLINAE		Genus <i>Plicatula</i>	15
Genus <i>Bathymodiolus</i>	13	Suborder PECTINNA	
Superorder PTERIOMORPHIA		Superfamily PECTINACEA	
Order PTERIOIDA		Family PECTINIDAE	
Suborder PINNINA		Genus <i>Argopecten</i>	16
Superfamily PINNACEA		Genus <i>Chlamys</i>	16
Family PINNIDAE		Genus <i>Crassadoma</i>	16
Genus <i>Pinna</i>	13	Genus <i>Cyclopecten</i>	16
Genus <i>Atrina</i>	13	Genus <i>Delectopecten</i>	16
Genus <i>Streptopinna</i>	13	Genus <i>Flabellipecten</i>	16
Suborder PTERIINA		Genus <i>Hyalopecten</i>	17
Superfamily PTERIACEA		Genus <i>Leptopecten</i>	17
Family PTERIIDAE		Genus <i>Nodipecten</i>	17
Genus <i>Pteria</i>	13	Genus <i>Oppenheimipecten</i>	17
Genus <i>Pinctada</i>	13	Genus <i>Pacipecten</i>	17
Family ISOGNOMONIDAE		Genus <i>Pseudamussium</i>	18
Genus <i>Isognomon</i>	13	Family PROPEAMUSSIIDAE	
Family MALLEIDAE		Genus <i>Propeamussium</i>	18
Genus <i>Malleus</i>	14	Family SPONDYLIDAE	
Order OSTREOIDA		Genus <i>Spondylus</i>	18
Suborder OSTREINA		Order LIMOIDA	
Superfamily OSTREACEA		Superfamily LIMACEA	
Family GRYPHAEIDAE		Family LIMIDAE	
Subfamily PYCNODONTEINAE		Genus <i>Lima</i>	18
Tribe HYOTISSINI		Genus <i>Acesta</i>	18
Genus <i>Hyotissa</i>	14	Genus <i>Limaria</i>	19
Genus <i>Parahyotissa</i>	14	Genus <i>Limatula</i>	19
Family OSTREIDAE		Superfamily ANOMIACEA	
Subfamily LOPHINAE		Family ANOMIIDAE	
Tribe LOPHINI		Genus <i>Anomia</i>	19
Genus <i>Dendostrea</i>	14	Genus <i>Pododesmus</i>	19
Tribe MYRAKEENINI		Family PLACUNIDAE	
Genus <i>Myrakeena</i>	14	Genus <i>Placunanomia</i>	19
Subfamily OSTREINAE		Subclass HETERODONTA	
Tribe OSTREINI		Order VENEROIDA	
Genus <i>Ostrea</i>	15	Superfamily CRASSATELLACEA	
Genus <i>Ostreola</i>	15	Family CRASSATELLIDAE	
Tribe UNDULOSTREINI		Subfamily CRASSATELLINAE	
Genus <i>Undulostrea</i>	15	Genus <i>Eucrassatella</i>	19
Tribe STRIOSTREINI		Subfamily SCAMBULINAE	
Genus <i>Saccostrea</i>	15	Genus <i>Crassinella</i>	20
Genus <i>Striostrea</i>	15	Family CARDINIIDAE	
Tribe CRASSOSTREINI		Genus <i>Tellidorella</i>	20
Genus <i>Crassostrea</i>	15		

Superfamily CARDITACEA		Superfamily GALEOMMATACEA	
Family CARDITIDAE		Family GALEOMMATIDAE	
Subfamily CARDITINAE		Genus <i>Bellascintilla</i>	25
Genus <i>Cardita</i>	20	Genus <i>Cymatioa</i>	26
Subfamily CARDITESINAE		Genus <i>Galeommella</i>	26
Genus <i>Cardites</i>	21	Genus <i>Tryphomyax</i>	26
Genus <i>Strophocardia</i>	21	Family ERYCINIDAE	
Subfamily CARDITAMERINAE		Subfamily ERYCINIINAE	
Genus <i>Carditamera</i>	21	Genus <i>Amerycina</i>	26
Genus <i>Cyclocardia</i>	21	Subfamily LASAEINAE	
Genus <i>Pleuromeris</i>	21	Genus <i>Lasaea</i>	26
Superfamily CORBICULACEA		Genus <i>Pseudopythina</i>	26
Family CORBICULIDAE		Family KELLIIDAE	
Genus <i>Polymesoda</i>	21	Subfamily KELLIINAE	
Superfamily DREISSENACEA		Genus <i>Kelliia</i>	27
Family DREISSENIDAE		Genus <i>Aligena</i>	27
Genus <i>Mytilopsis</i>	22	Subfamily BORNIINAE	
Superfamily GLOSSACEA		Genus <i>Bornia</i>	27
Family VESICOMYIDAE		Genus <i>Solecardia</i>	27
Genus <i>Vesicomya</i>	22	Family LEPTONIDAE	
Genus <i>Calyptogena</i>	22	Genus <i>Lepton</i>	27
Superfamily ARCTICACEA		Family MONTACUTIDAE	
Family KELLIELLIDAE		Subfamily MYSELLINAE	
Genus <i>Kelliella</i>	22	Genus <i>Mysella</i>	27
Superfamily LUCINACEA		Subfamily OROBITELLINAE	
Family LUCINIDAE		Genus <i>Orobitella</i>	28
Subfamily LUCININAE		Genus <i>Isorobitella</i>	28
Genus <i>Lucina</i>	22	Genus <i>Pythinella</i>	28
Genus <i>Here</i>	23	Subfamily THECODONTINAE	
Genus <i>Parvilucina</i>	23	Genus <i>Pristes</i>	28
Genus <i>Linga</i>	23	Superfamily CYAMIACEA	
Genus <i>Codakia</i>	23	Family SPORTELLIDAE	
Genus <i>Ctena</i>	24	Genus <i>Basterotia</i>	28
Subfamily DIVARICELLINAE		Family BERNARDINIDAE	
Genus <i>Divalinga</i>	24	Genus <i>Bernardina</i>	28
Subfamily MILTHINAE		Genus <i>Halodakra</i>	28
Genus <i>Miltha</i>	24	Superfamily CHAMACEA	
Genus <i>Pegophysema</i>	24	Family CHAMIDAE	
Subfamily MYRTAEINAE		Genus <i>Chama</i>	28
Genus <i>Lucinoma</i>	24	Genus <i>Arcinella</i>	29
Family UNGULINIDAE		Genus <i>Pseudochama</i>	29
Genus <i>Diplodontia</i>	25	Superfamily CARDIACEA	
Genus <i>Felaniella</i>	25	Family CARDIIDAE	
Genus <i>Phlyctiderma</i>	25	Subfamily TRACHYCARDIINAE	
Family THYASIRIDAE		Genus <i>Trachycardium</i>	30
Subfamily THYASIRINAE		Genus <i>Acrosterigma</i>	30
Genus <i>Conchocele</i>	25	Genus <i>Papyridea</i>	30
Subfamily AXINOPSIDINAE		Subfamily FRAGINAE	
Genus <i>Adontorhina</i>	25	Genus <i>Trigoniocardia</i>	31

Subfamily PROTOCARDIINAE		Genus <i>Macoma</i>	41
Genus <i>Nemocardium</i>	31	Genus <i>Psammotreta</i>	42
Subfamily LAEVICARDIINAE		Genus <i>Strigilla</i>	42
Genus <i>Laevicardium</i>	31	Genus <i>Temnoconcha</i>	42
Superfamily VENERACEA		Family DONACIDAE	
Family VENERIDAE		Genus <i>Donax</i>	42
Subfamily VENERINAE		Genus <i>Iphigenia</i>	44
Genus <i>Periglypta</i>	31	Family PSAMMOBIIDAE	
Genus <i>Globivenus</i>	31	Subfamily PSAMMOBINAE	
Subfamily CIRCINAE		Genus <i>Gari</i>	44
Genus <i>Gouldia</i>	32	Genus <i>Heterodonax</i>	45
Subfamily MERETRICINAE		Subfamily SANGUINOLARIINAE	
Genus <i>Tivela</i>	32	Genus <i>Sanguinolaria</i>	45
Genus <i>Transennella</i>	32	Genus <i>Nuttallia</i>	45
Subfamily PITARINAE		Subfamily SOLECURTINAE	
Genus <i>Pitar</i>	33	Genus <i>Solecurtus</i>	45
Genus <i>Amiantis</i>	34	Genus <i>Tagelus</i>	45
Genus <i>Megapitaria</i>	34	Family SEMELIDAE	
Subfamily DOSINIINAE		Genus <i>Semele</i>	45
Genus <i>Dosinia</i>	34	Genus <i>Abra</i>	48
Subfamily CYCLINAE		Genus <i>Cumingia</i>	48
Genus <i>Cyclinella</i>	34	Genus <i>Semelina</i>	48
Subfamily CLEMENTINIINAE		Superfamily SOLENACEA	
Genus <i>Clementia</i>	34	Family SOLENIDAE	
Genus <i>Compsomyax</i>	34	Genus <i>Solen</i>	48
Subfamily TAPETINAE		Family CULTELLIDAE	
Genus <i>Eurhomalea</i>	35	Genus <i>Ensis</i>	48
Genus <i>Irus</i>	35	Order MYOIDEA	
Subfamily CHIONINAE		Suborder MYINA	
Genus <i>Chione</i>	35	Superfamily MYACEA	
Genus <i>Chionopsis</i>	36	Family MYIDAE	
Genus <i>Timoclea</i>	36	Genus <i>Cryptomya</i>	49
Genus <i>Mercenaria</i>	36	Genus <i>Sphenia</i>	49
Genus <i>Protothaca</i>	36	Family CORBULIDAE	
Family PETRICALIDAE		Genus <i>Corbula</i>	49
Genus <i>Petricola</i>	37	Family SPHENIOPSIDAE	
Genus <i>Rupellaria</i>	37	Genus <i>Spheniopsis</i>	50
Superfamily MACTRACEA		Genus <i>Grippina</i>	50
Family MACTRIDAE		Superfamily GASTROCHAENACEA	
Genus <i>Mactra</i>	38	Family GASTROCHAENIDAE	
Genus <i>Harvella</i>	38	Genus <i>Gastrochaena</i>	50
Genus <i>Mactrellona</i>	38	Superfamily HIATELLACEA	
Genus <i>Mulinia</i>	38	Family HIATELLIDAE	
Genus <i>Raeta</i>	38	Genus <i>Hiatella</i>	50
Genus <i>Rangia</i>	39	Suborder PHOLADINA	
Genus <i>Spisula</i>	39	Superfamily PHOLADACEA	
Superfamily TELLINACEA		Family PHOLADIDAE	
Family TELLINIDAE		Subfamily PHOLADINAE	
Genus <i>Tellina</i>	39	Genus <i>Pholas</i>	50
Genus <i>Leporimetis</i>	41	Genus <i>Barnea</i>	50
Genus <i>Cymatoica</i>	41	Genus <i>Cyrtopleura</i>	50

Genus <i>Zirfaea</i>	50	Superfamily THRACIACEA	
Subfamily JOUANNETIINAE		Family PERIPLOMATIDAE	
Genus <i>Jouannetia</i>	51	Genus <i>Periploma</i>	53
Genus <i>Pholadopsis</i>	51	Genus <i>Albimanus</i>	53
Subfamily MARTESIINAE		Genus <i>Halistrepta</i>	53
Genus <i>Martesia</i>	51	Family THRACIIDAE	
Genus <i>Diplothyra</i>	51	Genus <i>Thracia</i>	54
Genus <i>Parapholas</i>	51	Genus <i>Asthenothaerus</i>	54
Subfamily XYLOPHAGAINAE		Genus <i>Bushia</i>	54
Genus <i>Xylophaga</i>	51	Genus <i>Cyathodonta</i>	54
Family TEREDINIDAE		Superfamily POROMYACEA	
Subfamily TEREDININAE		Family POROMYIDAE	
Genus <i>Teredo</i>	51	Genus <i>Poromya</i>	55
Genus <i>Lyrodus</i>	51	Family CUSPIDARIIDAE	
Genus <i>Psiloteredo</i>	52	Genus <i>Cuspidaria</i>	55
Genus <i>Uperotus</i>	52	Genus <i>Cardiomya</i>	55
Subfamily BANKIINAE		Genus <i>Myonera</i>	56
Genus <i>Bankia</i>	52	Genus <i>Plectodon</i>	56
Genus <i>Nausitora</i>	52	Superfamily VERTICORDIACEA	
Genus <i>Nototeredo</i>	52	Family VERTICORDIIDAE	
Subclass ANOMALODESMATA		Genus <i>Verticordia</i>	56
Order PHOLADOMYOIDA		Genus <i>Halicardia</i>	56
Superfamily PANDORACEA		Genus <i>Haliris</i>	56
Family PANDORIDAE		Genus <i>Lyonsiella</i>	56
Genus <i>Pandora</i>	52	Genus <i>Policordia</i>	56
Family LYONSIIDAE		LITERATURE CITED	57
Genus <i>Lyonsia</i>	53	INDEX	64
Genus <i>Entodesma</i>	53		

ADDITIONS TO THE PANAMIC PROVINCE BIVALVE (MOLLUSCA) LITERATURE - 1971 TO 1990

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A great many changes have occurred in the Panamic Province literature since A. Myra Keen's mammoth *SEA SHELLS OF TROPICAL WEST AMERICA* was published in 1971. New species have been named, taxonomic relationships redefined, and geographic distributions better understood. The purpose of this paper is to draw together as many bivalve citations as possible and tie them to the fauna at the species level so that each reader can make his/her own final judgments. Earlier papers in this series cover the Polyplacophora (Skoglund, 1989) and the Opisthobranchia (Skoglund, 1991a).

The Panamic Province lies along the Pacific coastline of the Americas between latitude 25°N and 6°S. There are many references to "Baja California," Mexico, in the literature of the Province. The correct names of the two political divisions of the peninsula are Baja California, the state north of the 28th parallel, and Baja California Sur, the state south of the 28th parallel. Previously published references to Baja California Norte are listed herein as Baja California.

A special effort has been made to include records of occurrence in the major offshore islands, including the Islas Revillagigedo, Mexico; L'île Clipperton, France; Isla del Coco, Costa Rica; and the Islas Galápagos, Ecuador.

Suprageneric taxa have been rearranged by several workers since 1971, including Waller (1978), Yonge & Morton (1980), Morton (1981), Boss (1982), Allen & Hannah (1986), Maxwell (1988) and Vaught (1989). Because this paper is meant to be used with Keen (1971), the original order Keen used has been preserved wherever possible. Numbers from Keen are used when available, but may no longer be in numerical order because some changes are unavoidable.

Only those species with changes since 1971 are included. Species are listed alphabetically within a genus. Taxa that differ from those given in Keen

(1971) are in bold type. Authors and publication dates are given only for those higher taxa in bold type. Synonyms are listed as published by each author, with the exception that those shown in Keen (1971) are not repeated. Where authors disagree, both versions are shown in the order they were published.

Most distributional records have been included, but be aware of the possibility of errors in shell identifications.

Many of the taxonomic changes in the Panamic Province literature are a result of Bernard's 1983 work on the bivalves of the eastern Pacific Ocean. Some of his citations, however, have not been used here because he overlooked significant earlier papers. Many of the new distributional records herein have so been taken from Bernard. His distributions are given only by approximate latitudes, such as 28°N-45°N. The northern boundary of the Panamic Province is usually considered to be Bahía Magdalena (about 25°N) on the west coast of Baja California Sur, and 31°N at the head of the Gulf of California (Table 1). Because a record of 28°N, for instance, could be either within the Gulf and therefore part of the Panamic fauna, or on the west side of Baja California and outside of the Panamic Province, some ambiguous Bernard distributions have not been included.

I thank those who have contributed to this paper. Dr. Eugene V. Coan, Jules & Carole M. Hertz, Walter E. Sage III, Paul H. Scott, Dr. Donald R. Shasky and Kay C. Vaught called citations to my attention. Gladys Weber and Virginia Upton edited early drafts. A special thanks to Dr. Coan who critically read the manuscript and offered many valuable suggestions.

Please call omissions and corrections to my attention, as there are bound to be citations I have missed.

Baja California		Mexican Mainland to Peru
<u>West Coast</u>	<u>East Coast</u>	Latitude
Ensenada	San Felipe	32°N
	Bahía de los Angeles	31°N
Isla Cedros		29°N
		28°N
		28°N
Bahía Magdalena	Bahía Santa Inez	27°N
		25°N
Cabo San Lucas	Bahía La Paz	24°N
		23°N
		20°N
		17°N
		15°N
		11°N
		10°N
		10°N
		9°N
		6°N
		5°N
		0°
		2°S
		6°S

Table 1. Approximate latitudes of major text sites

Class BIVALVIA
 Subclass PROTOBRANCHIA
 Follows Maxwell (1988)
 Order SOLEMYOIDA
 Suborder SOLEMYINA Dall, 1889
 Superfamily SOLEMYACEA
 Family SOLEMYIDAE
 Genus *Solemya* Lamarck, 1818
 Subgenus *Petrasma* Dall, 1908

2 *Solemya (P.) panamensis* Dall, 1908. Shell interior figured showing that the prop supporting the "chondrophore" is anterior to the posterior adductor scar (Gemmell, Myers & Hertz, 1979). Distribution: Oaxaca, Mexico, to Panama. More northern records are of

other species (Bernard, 1980). Length: 47.3 mm (Draper, 1987).
 3 *Solemya (P.) valvulus* Carpenter, 1864. Extend distribution to San Felipe, Baja California, Mexico. Shell interior figured (Gemmell, Myers & Hertz, 1979). Distribution: 21°N-33°N. Depth: 2-400 m (Bernard, 1983a).

Family ACHARACIDAE
 Scarlato & Starobogatov, 1979
 Genus *Acharax* Dall, 1908
 Raised from subgenus (Bernard, 1983a; Allen & Hannah, 1986).

1 *Acharax johnsoni* (Dall, 1891). Add synonyms: *Solemya tokunagai* Yokoyama, 1925; *S. (Acharax) tibai* Kuroda, 1948 (Bernard, 1983a).

- Suborder NUCINELLINA
Scarlato & Starobogatov, 1971
- Superfamily MANZANELLACEA Chronic, 1952
Family NUCINELLIDAE
Genus *Nucinella* Wood, 1851
Subgenus *Nucinella*, s. s.
- 64 *Nucinella (N.) subdola* (Strong & Herlein, 1937). Transferred to family Manzanellidae (Abbott, 1974). As family Nucinellidae (Bernard, 1983a). Depth: 35 m (F. & L. Poorman, 1988).
- Subgenus *Huxleyia* A. Adams, 1860
Changed from genus (Allen & Hannah, 1986).
- 65 *Nucinella (H.) munita* (Dall, 1898). Delete. Distribution (33°N-45°N) is north of the Panamic Province (Bernard, 1983a).
- Order NUCULOIDEA
Superfamily NUCULACEA
Family NUCULIDAE
Subfamily NUCULINAE Gray, 1824
Genus *Nucula* Lamarck, 1799
Allen & Hannah (1986) treat *Lamellinucula* Schenck, 1944, as a synonym of *Nucula*. Maxwell (1988) makes it a subgenus of *Nucula*. Subgenus *Nucula*, s. s.
- *Nucula (N.) carlottensis* Dall, 1897. As subgenus *Lamellinucula* by Bernard (1983a). Synonym: *Nucula darella* Dall, 1916. Distribution: Alaska to Cabo San Lucas, Baja California Sur, Mexico. Depth: 1500 to 2600 m (Bernard, 1983b).
- 12 *Nucula (N.) chrysocoma* Dall, 1908. As genus *Pronucula* by Knudsen (1970). Change ending from *chrysocome* (Keen & Coan, 1975). Add subgenus. Distribution: 7°S-45°N (Bernard, 1983a).
- 4 *Nucula (N.) declivis* Hinds, 1843. Depth: 35 m (F. & L. Poorman, 1988).
- 6 *Nucula (N.) iphigenia* Dall, 1908. Synonym: *Nucula iphigenia azulensis* Olsson, 1942 (Bernard, 1983a).
- 8 *Nucula (N.) schencki* Hertlein & Strong, 1970. Extend distribution across Gulf of California to Cabo Tepoca, Sonora, Mexico (Skoglund, 1974).
- 15 *Nucula (N.) taeniolata* Dall, 1908. Add subgenus (Bernard, 1983a).
- Subgenus *Lamellinucula* Schenck, 1944
As a synonym of *Nucula* (Allen & Hannah, 1986), and as a subgenus (Maxwell, 1988).
- 5 *Nucula (L.) exigua* (Sowerby, 1833). Synonym: *Nucula suprastrigata* Carpenter, 1903 (Hertlein & Grant, 1972). Subgenus changed from *Nucula* (Bernard, 1983a).
- 7 *Nucula (L.) paytensis* (A. Adams, 1856). Extend distribution north to Esmeraldas Province, Ecuador (Cruz-P., 1977). Subgenus changed from *Nucula* (Bernard, 1983a).
- Subfamily NUCULOMINAE Maxwell, 1988
Genus *Ennucula* Iredale, 1931
Raised from subgenus (Woodring, 1973). Allen & Hannah (1986) use *Nuculoma* Cossmann, 1907, with *Leionucula* Thiele, 1934, and *Ennucula* Iredale, 1931, as synonyms. Maxwell (1988) regards *Nuculoma* for fossil species only, and *Ennucula* as the genus for extant species.
- *Ennucula cardara* Dall, 1916. Distribution: 23°N-48°N (Bernard, 1983a).
- 9 *Ennucula colombiana* Dall, 1908. Subgenus as *Leionucula*. Chilean specimens should be assigned to a new species and *N. colombiana* reserved for shallow water tropical representatives (Bernard, 1983a). Drawings of holotype. Length: 6 mm. Depth: 11 to 25 m. Extend distribution north to San Felipe, Baja California, and to Guaymas, Sonora, Mexico (Gemmell, Myers & Hertz, 1987). Depth: 35 to 100 m (F. & L. Poorman, 1988).
- 10 *Ennucula linki* Dall, 1916. Subgenus as *Leionucula*. Distribution: 28°N-34°N (Bernard, 1983a). Distribution: Tillamook, Oregon, to central Mexico. Confined to shallow water (Bernard, 1983b).
- 13 *Ennucula panamina* Dall, 1908. Length: 22 mm. Valve interior and hinge teeth figured. Distribution: 6°N to 31°N. Depth: 1975 to 3058 m (Knudsen, 1970). As subgenus *Leionucula* by Bernard (1983a).

Superfamily NUCULANACEA

Family NUCULANIDAE

Subfamily NUCULINAE

H. & A. Adams, 1858

Genus *Nuculana* Link, 1807

Synonyms: *Costelloleda* Hertlein & Strong, 1940; *Politoleda* Hertlein & Strong, 1940; *Thestyleda* Iredale, 1929 (Allen & Hannah, 1986).

Subgenus *Nuculana*, s. s.

- *Nuculana (N.) amblia* (Dall, 1905). Distribution: 19°N-37°N (Bernard, 1983a).
- 16 *Nuculana (N.) costellata* (Sowerby, 1833). Extend distribution north to Bahía San Felipe, Baja California, Mexico (Gemmell, Hertz & Myers, 1980). Distribution: 4°N-27°N (Bernard, 1983a). Subgenus changed (Allen & Hannah, 1986).
- 30 *Nuculana (N.) hamata* (Carpenter, 1864). Synonym: *Leda hamata limata* Dall, 1916. Depth: 35 to 550 m (Bernard, 1983a). Subgenus changed (Allen & Hannah, 1986).
- 34 *Nuculana (N.) loshka* (Dall, 1908). Subgenus *Thestyleda* added (Bernard, 1983a). Subgenus changed (Allen & Hannah, 1986).
- 17 *Nuculana (N.) marella* Hertlein, Hanna & Strong, 1940. Length: 34 mm (Draper, 1987). Subgenus changed from *Costelloleda* (Allen & Hannah, 1986). Depth: 100 m (F. & L. Poorman, 1988).
- *Nuculana (N.) peruviana* (Dall, 1908). Distribution: 6°S (Bernard, 1983a).
- 18 *Nuculana (N.) polita* (Sowerby, 1833). Distribution: 9°N-14°N and the Islas Galápagos, Ecuador (Bernard, 1983a). Subgenus changed from *Politoleda* (Allen & Hannah, 1986).

Genus *Jupiteria* Bellardi, 1875

Raised to genus (Maxwell, 1988).

- 31 *Jupiteria agapea* (Dall, 1908). Valve interior and hinge teeth figured. Distribution: off Gulf of California, Mexico, to Ecuador (Knudsen, 1970). Subgenus *Jupiteria* added. Distribution: 1°N-6°N (Bernard, 1983a).
- 36 *Jupiteria pontonia* (Dall, 1890). Extend distribution south to Peru (Abbott, 1974). Subgenus *Jupiteria* added (Bernard, 1983a).

Genus *Saccella* Woodring, 1925

As a genus by Woodring (1973), a synonym of *Jupiteria* Bellardi, 1875, by Allen & Hannah (1986), and a genus by Maxwell (1988).

- 19 *Saccella acrita* (Dall, 1908). Extend distribution south to Esmeraldas Province, Ecuador. Depth: 43 to 90 m (Cruz-P., 1977). Distribution: 1°N-31°N (Bernard, 1983a). Depth: 30 to 100 m (F. & L. Poorman, 1988).
- 20 *Saccella bicostata* (Sowerby, 1871). Extend distribution north to Nayarit, Mexico (Reguero & García-Cubas, 1989).
- 21 *Saccella callimene* (Dall, 1908). Distribution: 10°N-37°N (Bernard, 1983a).
- 22 *Saccella eburnea* (Sowerby, 1833). Extend distribution north to Yavaros, Sonora, Mexico (García-Cubas & Reguero, 1987).
- 23 *Saccella elenensis* (Sowerby, 1833). Delete all synonyms except *Leda excavata* Hinds, 1843 (Cruz-P., 1977). Add synonyms: *Leda elenensis media* Hanley, 1860; *L. elenensis pyriformis* Hanley, 1860; *Leda elenensis gibbosa* Hanley, 1860, non *Nucula gibbosa* Fleming, 1828, non Sowerby, 1833, non McChesney, 1860. Include Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Depth: 35 to 90 m (F. & L. Poorman, 1988).
- 24 *Saccella fastigata* Keen, 1958. Cruz-P. (1977) used *N. gibbosa* Sowerby, 1833, with *N. fastigata* Keen, 1958, as a synonym. Bernard (1983) used *N. fastigata* with *N. gibbosa* as a synonym. Length: 43 mm (Draper, 1987).
- 25 *Saccella hindsii* (Hanley, 1860). Distribution: Alaska to Costa Rica. Depth: 27 to 1086 m (Abbott, 1974). Distribution: 8°N-28°N (Bernard, 1983a).
- 26 *Saccella impar* (Pilsbry & Lowe, 1932).
- 27 *Saccella ornata* (Orbigny, 1845). Depth: 47 and 90 m (Cruz-P., 1977).
- 28 *Saccella oxia* (Dall, 1916).

Genus *Adrana* H. & A. Adams, 1858

- 37 *Adrana crenifera* (Sowerby, 1833). Synonym: *Laeda arcuta* Sowerby, 1871. Distribution: 14°S-17°N (Bernard, 1983a).
- 39 *Adrana exoptata* (Pilsbry & Lowe, 1932). Extend distribution south to Ecuador (Olsson, 1961). In the lower figure the concentric

- sculpture should be shown more strongly as "crossing the lines of growth obliquely in the middle and posteriorly," as described by Pilsbry & Lowe (1932, p. 107) (Keen & Coan, 1975). Extend distribution north to San Felipe, Baja California, Mexico (Gemmell, Hertz & Myers, 1980). Distribution: 1°N-28°N (Bernard, 1983a).
- 40 *Adrana penascoensis* (Lowe, 1935). Extend distribution south to Laguna de Agiabampo, Sonora/Sinaloa, Mexico (García-Cubas & Reguero, 1987). Depth: 30 m (F. & L. Poorman, 1988).
- Subfamily LEDELLINAE
Allen & Sanders, 1982
Genus *Ledella* Verrill & Bush, 1897
- *Ledella ultima* (Smith, 1885). Anatomy and shell figured. Extend distribution to include the west coast of America from ca. 0° to 45°N (Filatova & Shileiko, 1984). Synonyms: *Ledella messanensis*, *auctt.*, *non* Jeffreys, 1870, *ex* Seguenza MS; *L. crassa* Knudsen, 1970; *L. bushae* Warén, 1978. Anatomy and shell figured (Allen & Hannah, 1989).
- Genus *Ledellina* Filatova & Shileiko, 1984
- *Ledellina olivacea* Filatova & Shileiko, 1984. Anatomy and shell figured. Distribution: ca. 6°S-8°S. Depth: 5300-7400 m (Filatova & Shileiko, 1984).
- Subfamily SPINULINAE
Allen & Sanders, 1982
Genus *Bathyspinula* Filatova, 1958
Subgenus *Acutispinula*
Filatova & Schileyko, 1984
New name for *Spinula* Dall, 1908, *non* Herrich-Schaeffer, 1856 (Filatova & Shileiko, 1984).
- 51 *Bathyspinula (A.) calcar* (Dall, 1908). Synonym: *Leda (Spinula) calcarella* Dall, 1908. Depth: 4063 to 6100 m (Knudsen, 1970). Delete. No Panamic Province records. Circum-Pacific, with one central Pacific site (Bertsch & Myers, 1980). Change genus and subgenus. Anatomy figured (Filatova & Shileiko, 1984). Delete *L. calcarella* as a synonym. It is a *Bathyspinula (Bathyspinula)* (Coan, pers. comm., 1991).
- Family SAREPTIDAE A. Adams, 1860
Subfamily SAREPTINAE A. Adams, 1860
Genus *Sarepta* A. Adams, 1860
- 50 *Sarepta abyssicola* E. A. Smith, 1885. Delete. Distribution is outside of the Panamic Province. Occurs in the central and south Pacific (Bernard, 1983a).
- Subfamily YOLDIINAE Habe, 1977
Genus *Megayoldia* Verrill & Bush, 1897
Raised from subgenus (Allen & Hannah, 1986).
- 58 *Megayoldia martyria* (Dall, 1897). Delete. Distribution (45°N-60°N) is not within the Panamic Province (Bernard, 1983a).
- Genus *Orthoyoldia* Verrill & Bush, 1897
Raised from subgenus (Allen & Hannah, 1986).
- 59 *Orthoyoldia panamensis* (Dall, 1908). Synonym: *Yoldia (O.) quiba* Olsson, 1942 (Bernard, 1983a).
- Subfamily YOLDIELLINE Allen, 1978
Genus *Yoldiella* Verrill & Bush, 1897
Raised from subgenus (Bernard, 1983a; Allen & Hannah, 1986).
Subgenus *Yoldiella*, s. s.
- 60 *Yoldiella (Y.) cecinella* (Dall, 1916). Genus as *Portlandia* Mörch, 1857 (Abbott, 1974), and as *Yoldiella* by Bernard (1983). Distribution: 24°N (Bernard, 1983a).
- 61 *Yoldiella (Y.) dicella* (Dall, 1908). Distribution: 17°N-45°N (Bernard, 1983a).
- 62 *Yoldiella (Y.) leonilda* (Dall, 1908). The fragmented type has not been figured (Knudsen, 1970).
- 63 *Yoldiella (Y.) mantana* (Dall, 1908).
- Family TINDARIIDAE Verrill & Bush, 1897
Genus *Tindaria* Bellardi, 1875
Read: Ligament external; shell ovate, thick; beaks high (Keen & Coan, 1975).
- 52 *Tindaria atossa* Dall, 1908. Closely related to *Tindaria smirna* Dall, 1908 [56], and may be conspecific with it (Knudsen, 1970).
- 53 *Tindaria compressa* Dall, 1908. Length: 11.5 mm. Shell interior and hinge teeth figured.

- Distribution: 6°N-30°N (Knudsen, 1970).
- 54 *Tindaria mexicana* Dall, 1908. Distribution: San Diego, California, to Acapulco, Guerrero, Mexico (Abbott, 1974). Distribution: 17°N-48°N (Bernard, 1983a).
- 55 *Tindaria panamensis* Dall, 1908. Distribution: 7°N-28°N (Bernard, 1983a).
- 56 *Tindaria smirna* Dall, 1908. Closely related to *Tindaria atossa* Dall, 1908 [52], and may be conspecific with it (Knudsen, 1970).
- Family NEILONELLIDAE Allen, 1978
Genus *Neilonella* Dall, 1881
Synonym: *Saturnia* Seguenza, 1877, non Schrank, 1802 (Maxwell, 1988).
- 33 *Neilonella lobula* (Dall, 1908). Genus changed to *Saturnia* (Bernard, 1983a).
- 35 *Neilonella lucasana* (Strong & Hertlein, 1937). Genus changed to *Saturnia* (Bernard, 1983a). Extend distribution north to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).
- Family MALLETIIDAE H. & A. Adams, 1858
Genus *Malletia* Moulins, 1832
Synonym: *Kataesmia* Dall, 1908 (Allen & Hannah, 1986).
Subgenus *Malletia*, s. s.
- *Malletia (M.) cuneata* Jeffreys, 1876. As subgenus *Neilo*. Synonyms: *Portlandia kolthoffi* Hägg, 1904; *Malletia pellucida* Thiele, 1912; *M. (Neilo) fiora* Dall, 1916. Length: 10.4 mm. Shell, hinge teeth and anatomy figured. Distribution: Gulf of Panama; west Pacific; Atlantic Ocean; Indian Ocean; Antarctic Ocean. Depth: 2365 to 6156 m (Knudsen, 1970). Shell variation figured (Allen, 1978). *Portlandia kolthoffi* and *Malletia cuneata* considered as separate Atlantic species in the genus *Kataesmia* (Bouchet & Warén, 1979). *Malletia (Minormalletia) kolthoffi* is correct for the Pacific species, whereas *M. cuneata* (Jeffreys, 1876) is a distinct Atlantic species. Distribution: 6°N-72°N, 2200-3600 m (Bernard, 1983a). As subgenus *Malletia*. Shell and anatomy figured. A cosmopolitan species of the abyss, with synonyms as listed above by Knudsen (1970) (Sanders & Allen, 1985).
- 46 *Malletia (M.) truncata* Dall, 1908. Distribution: 3°N-55°N (Bernard, 1983a).
- 57 *Malletia (M.) vincula* (Dall, 1908). As genus *Kataesmia* (Bouchet & Warén, 1979).
- Genus *Minormalletia* Dall, 1908
Raised from subgenus (Sanders & Allen, 1985).
- 47 *Minormalletia arciformis* (Dall, 1908).
- 48 *Minormalletia benthima* (Dall, 1908).
- Subclass AUTOBRANCHIA Grobben, 1894
Follows Waller (1978).
- Superorder PRIONODONTA MacNeil, 1937
Order ARCOIDA
Superfamily ARCACEA
Family ARCIDAE
Subfamily ARCINAE
Genus *Arca* Linnaeus, 1758
- 66 *Arca mutabilis* (Sowerby, 1833). Include L'île Clipperton (France) and the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).
- 67 *Arca pacifica* (Sowerby, 1833). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985).
- Genus *Barbatia* Gray, 1842
Subgenus *Barbatia*, s. s.
- 69 *Barbatia (B.) lurida* (Sowerby, 1833). Length: 54.1 mm (Draper, 1987).
- Subgenus *Acar* Gray, 1857
- 70 *Barbatia (A.) bailyi* (Bartsch, 1931). Length: 9 mm. Distribution: Santa Monica, California, to Panama (McLean, 1978).
- *Barbatia (A.) divaricata* (Sowerby, 1833). Synonyms: *Arca hawaiensis* Dall, Bartsch & Rehder, 1938; *Arca laysana* Dall, Bartsch & Rehder, 1938. Distribution: L'île Clipperton (France), and the Indo-Pacific (Bernard, 1983a).
- 71 *Barbatia (A.) gradata* (Broderip & Sowerby, 1829). Include Islas Galápagos, Ecuador, in distribution (Abbott, 1974). Similar to the Caribbean *B. (A.) domingensis* (Lamarck, 1819). Heath (1941) studied the anatomy (Keen & Coan, 1975). Length: 33 mm (Draper, 1987).
- 72 *Barbatia (A.) rostae* Berry, 1954. Abbott (1974) made *B. rostae* a synonym of *B. gradata* (Broderip & Sowerby, 1829). A valid species. Include Islas Galápagos, Ecuador, in

distribution (Bernard, 1983a). Holotype figured (Hertz, 1984).

Subgenus *Calloarca* Gray, 1857

- 73 *Barbatia* (*C.*) *alternata* (Sowerby, 1833). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Extend distribution across Gulf of California to San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987). Length: 46.8 mm (Draper, 1987).

Subgenus *Cucullaeearca* Conrad, 1865

- 74 *Barbatia* (*C.*) *reeeveana* (Orbigny, 1846). Add synonym: *Barbatia* (*C.*) *bramkampi* Durham, 1950. Include L'île Clipperton (France) and the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 94.9 mm (Wagner & Abbott, 1990).

Genus *Fugleria* Reinhart, 1937

Raised to genus (Bernard, 1983a).

- 75 *Fugleria* *illota* (Sowerby, 1833). Extend distribution to Punta Peñasco, Sonora, Mexico, and south to Peru and the Islas Galápagos, Ecuador. Depth: intertidal to 73 m (Hertlein & Grant, 1972). Extend distribution across the Gulf of California to San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987).

Subfamily ANADARINAE

Genus *Anadara* Gray, 1847

Subgenus *Anadara*, s. s.

- 77 *Anadara* (*A.*) *adamsi* Olsson, 1961. Extend distribution north to Bahía de los Angeles, Baja California, Mexico (F. & L. Poorman, 1978). Extend distribution south to Isla Gorgona, Colombia (von Prahl, 1986).

- 78 *Anadara* (*A.*) *concinna* (Sowerby, 1833). Changed to subgenus *Sectiarca* Olsson, 1961 (Abbott, 1974). As subgenus *Anadara* (Bernard, 1983a). Not all specimens have grooved ribs. Grooving is a variable characteristic (Gemmell, Myers & Hertz, 1987).

- 79 *Anadara* (*A.*) *mazatlanica* (Hertlein & Strong, 1943). Extend distribution south to Mánpora,

Peru (Peña, 1971). Extend distribution north to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988). Length: 82.2 mm (Draper, 1987).

- 80 *Anadara* (*A.*) *obesa* (Sowerby, 1833). Length: 32.6 mm (Draper, 1987).
- 81 *Anadara* (*A.*) *similis* (C.B. Adams, 1852). Extend distribution south to Tumbes, Peru (Peña, 1971). Extend distribution north to the Gulf of Fonseca, El Salvador (Hernández, 1979).
- 82 *Anadara* (*A.*) *tuberculosa* (Sowerby, 1833). Synonyms: *Arca septicostata* Reeve, 1844; *A. valdiviana* Philippi, 1887 (Bernard, 1983a). Length: 92 mm (Draper, 1987).

Subgenus *Cuneearca* Dall, 1898

- 83 *Anadara* (*C.*) *aequatorialis* (Orbigny, 1846). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 35 mm (Draper, 1987).
- 84 *Anadara* (*C.*) *bifrons* (Carpenter, 1857). Synonym: *Arca inaequivivalvis* Sowerby, 1832, non Bruguière, 1790 (Bernard, 1983a). Length: 55.4 mm (Draper, 1987).
- 85 *Anadara* (*C.*) *esmeralda* (Pilsbry & Olsson, 1941). Extend distribution south to Tumbes, Peru (Peña, 1971). Length: 59.3 mm (Draper, 1987). Extend distribution north to Nayarit, Mexico (Reguero & García-Cubas, 1989).
- 87 *Anadara* (*C.*) *perlabiata* (Grant & Gale, 1931). Length: 46.6 mm (Draper, 1987).
- 88 *Anadara* (*C.*) *reinharti* (Lowe, 1935). Extend distribution south to Tumbes, Peru (Peña, 1971). Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983). Subgenus changed from *Esmerarca* (Bernard, 1983a).

Subgenus *Larkinia* Reinhart, 1935

- 90 *Anadara* (*L.*) *multicostata* (Sowerby, 1833). Synonyms: *Arca brandtii* Philippi, 1845; *A. camuloensis* Osmont, 1904 (Bernard, 1983a). Length: 131 mm (Wagner & Abbott, 1990).

Subgenus *Potiarca* Iredale, 1939

- 86 *Anadara* (*P.*) *nux* (Sowerby, 1833). Extend distribution south to Tumbes, Peru (Peña, 1971). Genus changed from *Cuneearca*.

Anadara (P.) chemnitzii (Philippi, 1851) is a similar species from the western Atlantic (Woodring, 1973). Synonyms: *Arca zorritensis* Spieker, 1922; *A. patheonensis* Spieker, 1922. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 23.9 mm (Draper, 1987).

Subgenus *Rasia* Gray, 1857

- *Anadara (R.) auricula* Bernard, 1983. Synonym: *Arca auriculata* Sowerby, 1833, non Lamarck, 1819. Ecuador only. Depth: 15 to 30 m (Bernard, 1983a).
- 91 *Anadara (R.) emarginata* (Sowerby, 1833). Depth: 51 m (Cruz-P., 1977).
- 92 *Anadara (R.) formosa* (Sowerby, 1833). Extend distribution into the Gulf of California at Bahía de los Angeles, Baja California, Mexico (F. & L. Poorman, 1978). Extend distribution to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).

Subgenus *Scapharca* Gray, 1847

- 93 *Anadara (S.) biangulata* (Sowerby, 1833). Depth: 5 to 80 m. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).
- 96 *Anadara (S.) labiosa* (Sowerby, 1833). Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972).

Subgenus *Tosarca* Noda, 1965

- 95 *Anadara (T.) hyphalopilema* Campbell, 1962. Subgenus changed from *Scapharca* (Woodring, 1973). Length: 80 mm (Draper, 1987). Extend distribution south to Guayas, Ecuador (Skoglund, 1990b).

Genus *Bathyarca* Kobelt, 1891

- 97 *Bathyarca corpulenta* (Smith, 1885). *Arca orbicularis* Dall, 1881, with synonyms *Arca (Bathyarca) corpulenta* Smith, 1885; *Arca (Bathyarca) imitata* Smith, 1885; *Bathyarca abyssorum* Verrill & Bush, 1898; *Arca strebeli* Melvill & Standen, 1907; *Arca (Bathyarca) nucleator* Dall, 1908; *Arca corpulenta* var. *pompholyx* Dall, 1908. Height: 28.8 mm. Shell and anatomy figured. Distribution: California

(34°N) to Chile (34°S); west and central Pacific; Atlantic Ocean including Antarctic sector; Celebes Sea (Knudsen, 1970). Delete as synonyms: *Arca imitata* Smith, 1885; *Bathyarca abyssorum* Verrill & Bush, 1898; *Arca strebeli* Melvill & Standen, 1907. Synonym: *Bathyarca orbicularis* Dall, of Knudsen, 1970, non Dall, 1881. Anatomy figured. Distribution: Pacific Ocean only (Oliver & Allen, 1980).

Genus *Grandiarca* Olsson, 1961
Raised to genus (Moore, 1983).

- 89 *Grandiarca grandis* (Broderip & Sowerby, 1829). Add synonym: *Arca larkinii* Nelson, 1870 (Bernard, 1983a). Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983). Length: 129.5 mm (Draper, 1987).

Genus *Lunarca* Gray, 1842

- 98 *Lunarca brevifrons* (Sowerby, 1833). Depth to 90 m (Cruz-P., 1977). Length: 30.5 mm (Draper, 1987).

Subfamily STRIARCIINAE
Genus *Arcopsis* von Koenen, 1885

- 99 *Arcopsis solida* Sowerby, 1833. Extend distribution south to Chimbote, Peru (Peña, 1971). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Length: 19.1 mm (Draper, 1987).

Family NOETIIDAE
Subfamily NOETIINAE
Genus *Noetia* Gray, 1857
Subgenus *Noetia*, s. s.

- 101 *Noetia (N.) reversa* (Sowerby, 1833). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 67 mm (Draper, 1987).

Subgenus *Sheldonella* Maury, 1917

- 103 *Noetia (S.) delgada* (Lowe, 1935). Length: 14.8 mm (Draper, 1987). Depth: 100 m (F. & L. Poorman, 1988).

Superfamily LIMOPSACEA
 Family LIMOPSIDAE
 Genus *Limopsis* Sassi, 1827

- 104 *Limopsis dalli* Lamy, 1912. Synonym: *Limopsis compressus* Dall, 1896, non Nevill, 1874. Length: 40 mm. Distribution: off Baja California, Mexico, to the Gulf of Panama. Depth: 2071-4200 m. Regarded as a subspecies of *L. pelagica* Smith, 1885, by Knudsen (1970). Cosmopolitan, but absent from the Arctic Ocean. Delete *Limopsis pelagica* as a synonym (Oliver, 1981). Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983). Distribution: 6°N-52°N (Bernard, 1983a).
- 106 *Limopsis juarezi* Dall, 1908. Distribution: 6°N (Bernard, 1983a).
- 109 *Limopsis zonalis* Dall, 1908. Cosmopolitan, but absent from the Arctic Ocean (Oliver, 1981).

Superfamily GLYCYMERIDACEA
 Raised by Bernard (1983a).
 Family GLYCYMERIDIDAE
 Genus *Glycymeris* Da Costa, 1778
 Subgenus *Glycymeris*, s. s.

- 110 *Glycymeris* (G.) *gigantea* (Reeve, 1843). Distribution: 25°N-31°N (Bernard, 1983a). Length: 110.2 mm (Draper, 1987). Depth: 60 m (F. & L. Poorman, 1988).
- 111 *Glycymeris* (G.) *lintea* Olsson, 1961. Add the Islas Galápagos, Ecuador, to distribution (Keen & Coan, 1975).
- 112 *Glycymeris* (G.) *maculata* (Broderip, 1832). Extend distribution south to Pimentel, Peru (Peña, 1971). Depth: 5 to 45 m (Bernard, 1983a). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Length: 101 mm (Draper, 1987).
- *Glycymeris* (G.) *ovata* (Broderip, 1832). Synonym: *Pectunculus intermedius* Broderip, 1832. Distribution 5°S-12°S, intertidal zone (Bernard, 1983a).

Subgenus *Axinactis* Mörch 1861

- 113 *Glycymeris* (A.) *delessertii* (Reeve, 1843). Length: 52.7 mm (Draper, 1987).

Subgenus *Axinola* Hertlein & Grant, 1972

- *Glycymeris* (A.) *guadalupensis* Strong, 1938. Length: 10 mm. Distribution: Isla Guadalupe, west coast of Baja California, Mexico. Depth: 16 to 28 m (Strong, 1938). Distribution: 23°N-27°N (Bernard, 1983a).

Genus *Tucetona* Iredale, 1931
 Raised from subgenus (Nicol & Jones, 1984).
 Subgenus *Tucetona*, s. s.

- 115 *Tucetona* (T.) *canoa* (Pilsbry & Lowe, 1941).
 117 *Tucetona* (T.) *strigilata* (Sowerby, 1833).

Subgenus *Bellaxinaea* Nicol & Jones, 1984

- 116 *Tucetona* (B.) *multicostata* (Sowerby, 1833). Add synonym: *Pectunculus parcipictus* Reeve, 1843. Extend distribution to the Islas Galápagos, Ecuador (Bernard, 1983a). Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983). New subgenus (Nicol & Jones, 1984). Length: 46 mm (Draper, 1987).

Family PHILOBRYIDAE

- Genus *Philobrya*
 Cooper, 1867, ex Carpenter MS
 Genus author changed from Carpenter, 1872 (Coan, 1986).

- 118 *Philobrya setosa* (Carpenter, 1894). Syntype figured (Tevesz, 1977).

Superorder ISOFILIBRANCHIA Iredale, 1939

Order MYTILOIDA

Superfamily MYTILACEA

Family MYTILIDAE

Subfamily MYTILINAE

Genus *Mytilus* Linneaus, 1758

Subgenus *Mytilus*, s. s.

- *Mytilus* (M.) *californianus* Conrad, 1837. Distribution: Aleutian Islands, Alaska, to Isla Socorro, Mexico (Abbott, 1974). Distribution: 19°N-60°N. Depth: intertidal zone to 50 m (Bernard, 1983a). Length: 251 mm (Draper, 1987). Distribution: Alaska to Puerto

- Rompiente, Baja California Sur: Isla Socorro, Mexico (Coan, pers. comm., 1991).
- *Mytilus (M.) edulis* Linneaus, 1758. Synonyms: *Mytilus trossulus* Gould, 1850; *M. glomeratus* Gould, 1851; *M. pedroanus* Conrad, 1855; *M. edulis latissimus* Carpenter, 1857; *M. edulis normalis* Carpenter, 1857; *M. septentrionalis* Küster & Clessin, 1889; *M. edulis diegensis* Coe, 1945; *M. edulis kussakini* Scarlato & Starobogatov, 1979. Distribution: 23°N-71°N; cosmopolitan in temperate and cold seas. Depth: intertidal zone to 5 m (Bernard, 1983a). Length: 133.2 mm (Draper, 1987). Delete. Does not occur on the Pacific coast of North America (McDonald & Koehn, 1988).
- *Mytilus galloprovincialis* Lamarck, 1819. Synonyms: *Mytilus edulis diegensis* Coe, 1945; *Mytilus edulis* of Soot-Ryen, 1955 non Linnaeus, 1758 (in part). A genetically distinct, introduced species. Distribution: Southern California to Cabo San Lucas, Baja California Sur, Mexico; Mediterranean Sea; Japan; Hong Kong; South Africa; Atlantic coast of Europe north of the British Isles. In bays, estuaries, and exposed coasts, attached to hard substrates from mid-tide level to several meters subtidally (McDonald & Koehn, 1988).

Genus *Brachidontes* Swainson, 1840

- 119 *Brachidontes adamsianus* (Dunker, 1857). As genus *Aeidinomytilus* Olsson, 1961 (Hertlein & Grant, 1972). Hinge figured (Gemmell, Myers & Hertz, 1987).
- *Brachidontes purpuratus* (Lamarck, 1819). Synonyms: *Mytilus ovalis* Lamarck, 1819; ?*M. exaratus* Philippi, 1847; *M. exilis* Philippi, 1847; *M. bifurcatus* Dautzenberg, 1896, non Conrad, 1837. Distribution: 1°S-41°S, including the Islas Galápagos, Ecuador. Intertidal zone (Bernard, 1983a). Delete. Galápagos record probably in error (Coan, pers. comm., 1990).
- 122 *Brachidontes semilaevis* (Menke, 1849). Extend distribution south to Chimbote, Peru (as *B. multiformis*) (Peña, 1971). Delete *Brachidontes multiformis* Carpenter, 1857, as a synonym; valid species (Abbott, 1974). *B. multiformis* as a synonym (Bernard, 1983a). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Hinge figured (Gemmell, Myers & Hertz, 1987).

Genus *Choromytilus* Soot-Ryen, 1952

- 123 *Choromytilus palliopunctatus* (Carpenter, 1857). Synonym: *Mytilus tenuiaratus* Carpenter, 1857, ex Dunker MS, nom. nud. (Bernard, 1983a). Length: 192.5 mm (Draper, 1987).

Genus *Mytella* Soot-Ryen, 1955

- 125 *Mytella guyanensis* (Lamarck, 1819). Add synonyms: *Mytilus bicolor* Lamarck, 1819; *Modiola semifusca* Sowerby, 1825; *M. brasiliensis mutabilis* Carpenter, 1857 (Bernard, 1983a). Length: 75.1 mm (Draper, 1987).
- 126 *Mytella speciosa* (Reeve, 1857). Synonyms: *Modiolus planata* Tomlin, 1928, ex Carpenter MS; *M. (M.) tumbezensis* Pilsbry & Olsson, 1935 [128] (Bernard, 1983a).
- 127 *Mytella strigata* (Hanley, 1843). Add synonym: *Mytilus sinuatus* Reeve, 1857 (Bernard, 1983a).
- 128 *Mytella tumbezensis* (Pilsbry & Olsson, 1935). Bernard (1983a) made this a synonym of *M. speciosa* (Reeve, 1857) [126], but later decided it was a good species (Coan, pers. comm., 1990).

Genus *Septifer* Récluz, 1848

- *Septifer bifurcatus* (Conrad, 1837). Length: 32 mm. Distribution: Crescent City, California, to Cabo San Lucas, Baja California Sur, Mexico (McLean, 1978). Synonym: *Septifer bifurcatus obsoletus* Dall, 1916, nom. nud. Depth: intertidal zone to 50 m (Bernard, 1983a).
- 129 *Septifer zeteki* Hertlein & Strong, 1946. Add synonym: *Mytilus cumingianus* Reeve, 1858. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Extend distribution to Bahía San Carlos area, Sonora, Mexico (F. & L. Poorman, 1988).

Subfamily CRENELLINAE

Genus *Crenella* Brown, 1927

- 131 *Crenella divaricata* (Orbigny, 1847). As *Crenella inflata* Carpenter, 1864, with synonym: *Nuculocardia divaricata* Orbigny, auctt., non Orbigny, 1842. Distribution: Huntington Beach, California, to the Gulf of California, Mexico, and south to Callao, Peru. Depth: 4 to 91 m (Hertlein & Grant, 1972). Synonym:

Crenella inflata Carpenter, 1864, *non Mytilus inflatus* Müller, 1847. Include Isla del Coco, Costa Rica, in distribution (Bernard, 1983a).

Genus *Gregariella* Monterosato, 1884

- 132 *Gregariella chenui* (Récluz, 1842). Synonyms: *Mytilis chenuanus* Orbigny, 1846; *Mytilis fontaineaus* Orbigny, 1846 (Hertlein & Grant, 1972). Extend distribution to near the head of the Gulf of California at San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987).
- 133 *Gregariella coralliophaga* (Gmelin, 1791). A widespread and variable species that has many synonyms. Distribution: Monterey, California, to Peru; North Carolina to Texas; West Indies; Bermuda; Brazil (Abbott, 1974). Synonym: *Crenella coarctata* (Carpenter, 1857) (Bernard, 1983a). Occurrence in the Islas Galápagos doubtful (Finet, 1985). Extend distribution to Bahía San Carlos area, Sonora, Mexico (F. & L. Poorman, 1988).
- 134 *Gregariella denticulata* Dall, 1871. Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth: 35 m (F. & L. Poorman, 1988).

Genus *Lioberus* Dall, 1898

- 135 *Lioberus salvadoricus* (Hertlein & Strong, 1946). Depth: 40 m (F. & L. Poorman, 1988). Length: 47.6 mm (Wagner & Abbott, 1989).
- 136 *Lioberus splendidus* (Dunker, 1857). Delete. Probably a west Atlantic species (Bernard, 1983a).

Genus *Megacrenella* Habe & Ito, 1965

- 137 *Megacrenella columbiana* (Dall, 1897). Genus changed to *Rhomboiella*. *Crenella megas* Dall, 1902, not listed as a synonym. Distribution: Aleutian Islands, Alaska, to Mexico (Abbott, 1974). As genus *Megacrenella*. Synonym: *Crenella tamurai* Habe, 1955. Distribution: 17°N-60°N (Bernard, 1983a).

Subfamily LITHOPHAGINAE

Genus *Lithophaga* Röding, 1798

Subgenus *Diberus* Dall, 1898

- *Lithophaga (D.) canalicifera* (Hanley, 1843). Distribution: 1°S-4°N, intertidal zone (Bernard, 1983a). Lectotype designated. Length: 39.5 mm (Kleemann, 1983).
- 138 *Lithophaga (D.) plumula* (Hanley, 1844). Add synonyms: *Lithodomus subula* Reeve, 1857; *L. plumula kelseyi* Hertlein & Strong, 1946 (Keen & Coan, 1975). Lectotype designated. Add synonyms: *Lithophaga plumula* var. *gracilior* Carpenter, 1857; *L. plumula* var. *tumidior* Carpenter, 1857; ?(*Diberus*) *mucronata* (Philippi, 1846) (Kleemann, 1983). Distribution: 4°S-40°N, including L'île Clipperton (France) and the Islas Galápagos, Ecuador (Bernard, 1983a). Holotype of synonym, *Lithophaga (D.) divaricalx* Iredale, 1939, figured. Include the Philippines and Australian distribution (Kleemann, 1984). Occurrence in the Islas Galápagos doubtful (Finet, 1985). Length: 72.5 mm (Draper, 1987).

Subgenus *Labis* Dall, 1916

- 139 *Lithophaga (L.) attenuata* (Deshayes, 1836). Bernard (1983a) incorrectly uses as a synonym of *Labis peruviana* (Orbigny, 1846), which is found south of the Panamic Province (12°S-18°S). Valid species. Synonym: *Lithophaga (L.) attenuata rogersi* Berry, 1957 [140] (Kleeman, 1983). Holotype of *L. (L.) attenuata rogersi* figured (Hertz, 1984). Length: 110.6 mm (Draper, 1987).
- 140 *Lithophaga (L.) attenuata rogersi* Berry, 1957. Delete. Becomes a synonym of *Lithophaga (L.) attenuata* (Deshayes, 1836) [139] (Kleemann, 1983).

Subgenus *Myoforceps* Fischer, 1886

- 143 *Lithophaga (M.) aristata* (Dillwyn, 1817). Add synonyms: *Lithophaga calculata* (Carpenter, 1857) [145]; *L. forcipata* (Ravenel, 1861); *L. ropan* Deshayes, 1836; *L. bipenniferus* (Guppy, 1877) (Abbott, 1974). Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983). Synonyms: *L. aristata* var. *gracilior* Carpenter, 1857; *L. aristata* var. *tumidior* Carpenter, 1857. *Lithophaga incurva* Gabb, 1861, used as a synonym by Bernard (1983a), is a fossil *Botula*

(Kleemann, 1983). Length: 32.8 mm (Draper, 1987).

Subgenus *Stumpiella* Soot-Ryen, 1955

- 145 *Lithophaga* (*S.*) *calyculata* (Carpenter, 1857). Regarded as a synonym of *Myosourceps aristata* (Dillwyn, 1817) [143] by Abbott (1974). Valid species. Include L'île Clipperton (France) in distribution (Bernard, 1983a). Occurrence in the Islas Galápagos doubtful (Finet, 1985). Length: 23.1 mm (Draper, 1987).

Genus *Adula* H. & A. Adams, 1857

- 147 *Adula soleniformis* (Orbigny, 1846). Synonym: *Adula soleniformis panamensis* Olsson, 1961 [148]. Distribution: 5°S-8°N (Bernard, 1983a).
 148 *Adula soleniformis panamensis* Olsson, 1961. Delete. Becomes a synonym of *A. soleniformis* (Orbigny, 1846) [147] (Bernard, 1983a).

Genus *Botula* Mörch, 1853

Moved from subfamily Modiolinae (Wilson & Tait, 1984).

- 155 *Botula fusca* (Gmelin, 1791). Synonym: *Botula cylista* Berry, 1959. Distribution 1°S-23°N, including the Atlantic (Bernard, 1983a). Holotype of *B. cylista* figured (Hertz, 1984). Add synonyms: *Modiola cinnamomea* Lamarck, 1819; *Modiola silicula* Lamarck, 1819; *Modiole savanni* Potiez & Michaud, 1844; *Lithodomus projectans* Tate, 1892; *Botula hawaiensis* Dall, Bartsch & Rehder, 1938; *Botula laysana* Dall, Bartsch & Rehder, 1938; *Botulopa silicula infra* Iredale, 1939. Anatomy and holotypes of several of the synonyms figured. Length: 29 mm. The single species in the genus is widespread in tropical and subtropical Indian, Pacific and western Atlantic oceans. Bores in dead corals, coral rocks and other calcareous rocks. Depth: intertidal zone to 532 m (Wilson & Tait, 1984).

Genus *Leiosolenus* Carpenter, 1856
 Raised to genus (Wilson & Tait, 1984).

- 141 *Leiosolenus laevigata* (Quoy & Gaimard, 1835). Synonym: *Lithophaga hancocki* Soot-Ryen, 1955. Found only in living coral. Distribution: Islas Galápagos; Indonesia; Australia; Maldive

Islands; Red Sea (Kleemann, 1980). Include L'île Clipperton (France), in distribution (Bernard, 1983a). Occurrence in the Islas Galápagos doubtful (Finet, 1985).

- 142 *Leiosoleus spatiosa* (Carpenter, 1857). Length: 65 mm (Draper, 1987).

Subfamily MODIOLINAE
 Genus *Modiolus* Lamarck, 1799
 Subgenus *Modiolus*, s.s.

- 151 *Modiolus* (*M.*) *americanus* (Leach, 1815). Synonyms: *Modiolus tulipa* Lamarck, 1819; *M. pseudotulipus* Olsson, 1961. Distribution: Gulf of California, Mexico, to Peru; South Carolina to Brazil; Bermuda (Abbott, 1974). Depth: intertidal zone to 20 m (Bernard, 1983a).
 149 *Modiolus* (*M.*) *capax* (Conrad, 1937). Add synonym: *Mytilus splendens* Dunker, 1857. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 188 mm (Draper, 1987).
 --- *Modiolus* (*M.*) *neglectus* Soot-Ryen, 1955. Distribution: 23°N-37°N. Depth: 15 to 110 m (Bernard, 1983a).
 152 *Modiolus* (*M.*) *rectus* (Conrad, 1837). Distribution: Vancouver Island, British Columbia, Canada, to the Gulf of California, Mexico (McLean, 1978). Extend distribution north to Bahía San Luis Gonzaga, Baja California, Mexico (Mulliner, 1984). Synonym: *Modiolus pacificus* Olsson, 1961. Distribution 5°S-35°N, including the Islas Galápagos, Ecuador (Bernard, 1983a). Occurrence in the Islas Galápagos, Ecuador, doubtful (Finet, 1985). Length: 213 mm (Draper, 1987).

Genus *Amygdalum* Megerle von Mühlfeld, 1811

- 154 *Amygdalum pallidulum* (Dall, 1916). Distribution: 28°N-37°N (Bernard, 1983a). Length: 22.6 mm (Draper, 1987).

Genus *Benthomodiolus* Dell, 1987

- *Benthomodiolus abyssicola* (Knudsen, 1970). Length: 17.2 mm. Anatomy figured. Distribution: Gulf of Panama. Depth: 3270-3670 m (Knudsen, 1970). Holotype figured (Kenk & Wilson, 1985). Genus changed from *Modiolus*. Foot muscle mass figured (Dell, 1987).

Genus *Dacrydium* Torell, 1859
 Subgenus *Dacrydium*, s. s.

- *Dacrydium (D.) panamensis* Knudsen, 1970.
 Length: 5 mm. Distribution: Acapulco, Guerrero, Mexico, to the Gulf of Panama.
 Depth: 3270 to 3670 m (Knudsen, 1970).

Subgenus *Quendreda* Iredale, 1936

- *Dacrydium (Q.) elegantulum* Soot-Ryen, 1955.
 Length: 2.4 mm. Redondo Beach, California, to the Islas Galápagos, Ecuador, in 25 to 200 m (Soot-Ryen, 1955). Distribution: 28°N-34°N (Bernard, 1983a). Finet (1985) states that occurrence in the Islas Galápagos is doubtful, but the type locality is Bahía de Gardner, Islas Galápagos.

Subfamily BATHYMODIOLINAE
 Kenk & Wilson, 1985

Genus *Bathymodiolus* Kenk & Wilson, 1985

- *Bathymodiolus thermophilus* Kenk & Wilson, 1985. Length: 149.5 mm. Galápagos Rift thermal vents. Depth: 2495 m (Kenk & Wilson, 1985).

Superorder PTERIOMORPHIA Beurlen, 1944

- Order PTERIOIDA Newell, 1965
 Suborder PINNINA Waller, 1978
 Superfamily PINNACEA
 Family PINNIDAE
 Genus *Pinna* Linneaus, 1758

- 156 *Pinna rugosa* Sowerby, 1835. Add L'île Clipperton, (France), and south to Salinas, Ecuador, to distribution (Salvat & Salvat, 1972). Add Islas Galápagos, Ecuador, to distribution (Finet, 1987). Extend distribution north to near the head of the Gulf of California at San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987).

Genus *Atrina* Gray, 1842

- 157 *Atrina maura* (Sowerby, 1835). Add synonym: *?Pinna cumingii* Hanley, 1858 (Keen & Coan, 1975). Length: 422 mm (Draper, 1987).

- 158 *Atrina oldroydii* Dall, 1901. Length: 231 mm (Draper, 1987).

- 160 *Atrina tuberculosa* (Sowerby, 1835). Considered a synonym of *Atrina maura* (Sowerby, 1835) by some authors, notably Winckworth and Fischer-Piette (Keen & Coan, 1975). Bernard (1983a) treats *A. tuberculosa* as a valid species with a distribution from 5°S to 28°N, including the Islas Galápagos, Ecuador.

Genus *Streptopinna* von Martens, 1880

- *Streptopinna saccata* (Linnaeus, 1758). Synonym: *Pinna nuttalli* Conrad, 1837. Height: 235 m. Distribution: throughout the Indo-West Pacific. Depth: 1-2 m (Kay, 1979). Extend distribution to Isla del Coco, Costa Rica. Also found from East Africa to eastern Polynesia (Shasky, 1987).

Suborder PTERIINA Newell, 1965

- Superfamily PTERIACEA
 Family PTERIIDAE
 Genus *Pteria* Scopoli, 1777

- 161 *Pteria sterna* (Gould, 1851). Depth to 90 m (Cruz-P., 1977). Add synonyms: *Avicula eximia* Reeve, 1857; *A. libella* Reeve, 1857; *Pteria rositae* Hertlein, 1928. Delete *Pteria viridizona* Dall, 1916, as a synonym. Distribution: 5°S-30°N (Bernard, 1983a). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Length: 152 mm (Wagner & Abbott, 1990).

Genus *Pinctada* Röding, 1798

- 162 *Pinctada mazatlanica* (Hanley, 1856). Add L'île Clipperton, (France), and the Islas Galápagos, Ecuador, to distribution (Bernard, 1983a). Length: 180 mm (Draper, 1987).

Family ISOGNOMONIDAE

- Genus *Isognomon*
 Lightfoot, 1786, ex Solander MS
 Subgenus *Melina* Retzius, 1788

The subgenus *Isognomon*, s. s., is malleiform and occurs only in the Indo-Pacific. There has been confusion about the type species of *Isognomon* (Coan, pers. comm., 1990).

- 163 *Isognomon (M.) janus* Carpenter, 1857. Hinge and exterior of valve figured. Extend

- distribution north to San Diego, California (Myers & D'Attilio, 1979). Length: 63.8 mm (Draper, 1987).
- *Isognomon (M.) incisus* (Conrad, 1837). Extend distribution to Isla del Coco, Costa Rica (Shasky, 1986a). Figured (Shasky, 1986b).
- 164 *Isognomon (M.) recognitus* (Mabille, 1895). Reported from Isla del Coco, Costa Rica, as *Isognomon "quadrangularis"* by Emerson (1978). As *I. quadratus* (Anton, 1837). Distribution: 2°S-26°N, including the Islas Galápagos, Ecuador (Bernard, 1983a). Synonym: *Isognomon quadratus* (Anton, 1837), non Sowerby, 1835 (Coan, pers. comm., 1991).
- Family MALLEIDAE
Genus *Malleus* Lamarck, 1799
Subgenus *Malvufundus* Gregorio, 1885
- 165 *Malleus (M.) regulus* (Forskål, 1775). Synonyms: *Malleus rufipunctatus* Reeve, 1858; *Vulsella nuttalli* Conrad, 1837; *Avicula candeana* Orbigny, 1846; *Malleus tigrinus* Reeve, 1858; *M. panamensis* Mörcz, 1861; *M. obvolutus* Folin, 1867. Cosmopolitan in warm water 9°N-23°N (Bernard, 1983a). Include Isla del Coco, Costa Rica, in distribution (Shasky, 1986a). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Figured (Shasky, 1986b).
- Order OSTREOIDA Féruccac, 1822
Suborder OSTREINA Féruccac, 1822
Superfamily OSTREACEA
- Classification follows Harry (1985). Complete synonymies for species were not given by Harry. Morphological and anatomical keys to the oysters of Mexico (Castillo Rodríguez & García-Cubas, 1987).
- Family GRYPHAEIDAE Vyalov, 1936
Subfamily PYCNOdontinae
Stenzel, 1959
- Tribe HYOTISSINI Harry, 1985
Genus *Hyotissa* Stenzel, 1971
- 171 *Hyotissa hyotis* Linnaeus, 1758. Synonym: *Ostrea fisheri* (Dall, 1914) and numerous junior synonyms in the west Indo-Pacific populations. Distribution: Panamic Province; west Pacific (Harry, 1985). Distribution: Gulf of California, Mexico, to Ecuador and the Islas Galápagos; east Africa and Madagascar to southern Japan (Moore, 1987). Length: 211.6 mm (Wagner & Abbott, 1988).
- Genus *Parahyotissa* Harry, 1985
Subgenus *Plioxytissa* Harry, 1985
- *Parahyotissa (P.) quercinus* (Sowerby, 1871). Figured (Harry 1985). Original description and figures from Sowerby, good photos. Distribution: San Felipe, Baja California, south on the west side of the Gulf of California to Cabo San Lucas, Baja California Sur; Puerto Vallarta, Jalisco; Manzanillo, Colima, on the mainland of Mexico (Gemmell, Hertz & Myers, 1985).
- Family OSTREIDAE
Subfamily LOPHINAE Vyalov, 1936
Tribe LOPHINI Vyalov, 1936 (Harry, 1985)
Genus *Dendostrea* Swainson, 1835
- *Dendostrea folium* (Linneaus, 1758). Synonyms: *Mytilus frons* Linneaus, 1758; *M. cristagalli* Linneaus, 1758; *Ostra serra* Dall, 1914, non Lamarck, 1899; *O. dalli* Lamy, 1930; *O. (Pretostrea) bresia* Iredale, 1939. Circumtropic, including Bahía de Panama (Bernard 1983a). Extend distribution to Isla del Coco, Costa Rica, and Cabo Pulmo, Baja California Sur, Mexico. Figured (Shasky, 1986b).
- *Dendostrea mexicanum* (Sowerby, 1871). Distribution: coast of Baja California, Mexico. Found in shallow subtidal zones, on gorgonians, and stony corals (Harry, 1985).
- Tribe MYRAKEENINI Harry, 1985
Genus *Myrakeena* Harry, 1985
- 167 *Myrakeena angelica* (Rochebrune, 1895). Extend distribution south to Pimentel, Peru (Peña, 1971). Figured. Distribution limited to the Gulf of California, Mexico. Low tide zone and slightly deeper (Harry, 1985). Extend distribution north to San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987).

Subfamily OSTREINAE Rafinesque, 1815
 Tribe OSTREINI Rafinesque, 1815
 (Harry, 1985)
 Genus *Ostrea* Linnaeus, 1758

- 175 *Ostrea tubulifera* Dall, 1914. Delete. Probably not a valid Panamic species; type may be from another province (Bernard, 1983a).

Genus *Ostreola* Monterosato, 1884

- 169 *Ostreola conchaphila* (Carpenter, 1857). As *Ostrea lurida* Carpenter, 1864. Synonyms: *Ostrea lurida laticaudata* Carpenter, 1864, ex Nuttall MS; *O. l. rufoidea* Carpenter, 1864; *O. l. expansa* Carpenter, 1864, non Sowerby, 1819 (Bernard, 1983a). Synonym: *Ostrea lurida* Carpenter, 1864. Distribution: Alaska to Panama. Shallow subtidal zone to a few meters depth (Harry, 1985). Depth: 100 m (F. & L. Poorman, 1988).

Tribe UNDULOSTREINI Harry, 1985
 Genus *Undulostrea* Harry, 1985

- 173 *Undulostrea megodon* (Hanley, 1846). Add synonyms: *Ostrea gallus* Valenciennes, 1846; *O. cerrosensis* Gabb, 1866 (Keen & Coan, 1975). Distribution: Laguna San Ignacio, west coast of Baja California Sur, Mexico; Gulf of California to Peru. Low intertidal to several meters depth: attached to shells (Harry, 1985). Length: 100.6 mm (Draper, 1987).

Tribe STRIOSTREINI Harry, 1985
 Genus *Saccostrea* Dolfuss & Dautzenberg, 1920

- 174 *Saccostrea palmula* (Carpenter, 1857). Include Isla Cocos, Costa Rica, in distribution (Bakus, 1975). Distribution: Laguna San Ignacio, west coast of Baja California Sur, Mexico, to Panama and the Islas Galápagos, Ecuador. Intertidal, attached to mangroves or rocks (Harry, 1985). Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983).

Genus *Striostrea* Vyalov, 1936
 Subgenus *Striostrea*, s. s.

- 172 *Striostrea* (S.) *prismatica* (Gray, 1825). Synonym: *Ostrea puelchana* Orbigny, auct., non

Orbigny, 1841; *O. iridescent* Hanley, 1854; *Ostrea virginica californica* Marcou, 1858 (Bernard, 1983a). Subtidal zone, attached to non-calcareous rock (Harry, 1985). Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983).

Tribe CRASSOSTREINI
 Torigoe, 1981 (Harry, 1985)
 Genus *Crassostrea* Sacco, 1897

- 168 *Crassostrea columbiensis* (Hanley, 1846). Synonym: *Ostrea tulipa* Sowerby, 1871 (Bernard, 1983a). Synonym: *Ostrea corteziensis* Hertlein, 1951 [170]. Distribution: Gulf of California to Ecuador (Harry, 1985).
 170 *Crassostrea corteziensis* (Hertlein, 1951). Delete. Becomes synonym of *Crassostrea columbiensis* (Hanley, 1846) [168] (Harry, 1985).

Superfamily DIMYACEA P. Fischer, 1886
 Family DIMYIDAE
 Genus *Dimya* Rouault, 1850

- 205 *Dimya californiana* Berry, 1936. Redescription. Hinge figured (Myers & D'Attilio, 1980).

Superfamily PLICATULACEA Watson, 1930
 Family PLICATULIDAE
 Genus *Plicatula* Lamarck, 1801

- 206 *Plicatula anomoides* Keen, 1958. Extend distribution south to La Libertad, El Salvador (Hernández, 1979).
 207 *Plicatula inezana* Durham, 1950. Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Extend distribution north to Bahía de los Angeles, Baja California, Mexico (F. & L. Poorman, 1978). Depth: 45 to 140 m (Bernard, 1983a). Length: 52.1 mm (Draper, 1987). Extend distribution across the Gulf of California to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988). Extend distribution south to Bahía Cocos, Costa Rica (Skoglund, 1990a).
 208 *Plicatula penicillata* Carpenter, 1857. Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Intertidal zone. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).

- Extend distribution north to Bahía de los Angeles, Baja California, Mexico (F. & L. Poorman, 1978). Extend distribution across the Gulf of California to Bahía San Carlos, Sonora, Mexico. Depth: 20 to 80 m (F. & L. Poorman, 1988).
- 209 *Plicatula spondylopsis* Rochebrune, 1895. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).
- Suborder PECTINNA Waller, 1978
Superfamily PECTINACEA
Family PECTINIDAE
Genus *Argopecten* Monterosato, 1889
As a subgenus of *Chlamys* (Hertlein & Grant, 1972). As a genus (Abbott, 1974; Bernard, 1983a).
- 182 *Argopecten circularis* (Sowerby, 1835). Add synonyms: *Pecten pomatia* Valenciennes, 1846; *P. ventricosus aequisulcatus* Carpenter, 1864; *P. (Plagioctenium) subventricosus* Dall, 1898; *P. compactus* Dall, 1898; *P. newsonii* Arnold, 1903. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 106 mm (Wagner & Abbott, 1990).
- Genus *Chlamys* Röding, 1798
Subgenus *Chlamys*, s. s.
- *Chlamys (C.) incantata* Hertlein, 1972. Height: 45 mm. Islas Galápagos, Ecuador. Depth: 200 m (Hertlein, 1972).
- 183 *Chlamys (C.) lowei* (Hertlein, 1935). Height: 22.9 mm (Draper, 1987).
- Genus *Crassadoma* Bernard, 1986
- *Crassadoma gigantea* (Gray, 1825). Synonyms: *Hinnita pouloni* Conrad, 1834; *Pecten (Chlamys) multirugosus* Gale, 1928. Distribution: Aleutian Islands to Bahía Magdalena, Baja California Sur, Mexico. Depth: high tide zone to 55 m (Hertlein & Grant, 1972). As *Hinnites multirugosus* (Gale, 1928) with *H. giganteus* Gray, 1825, as a synonym (Abbott, 1974). *Pecten (Chlamys) multirugosus* Gale, 1928, is a junior synonym of *Hinnites giganteus* (Gray, 1825) (Roth & Coan, 1978). Synonyms: *H. crassa* Conrad, 1857; *P. (C.) multirugosus crassiplicatus* Gale, 1928; *Hinnites benedicti* Adegoke, 1969. Distribution: 25°N-60°N. Depth: intertidal zone to 80 m (Bernard, 1983a). Genus changed from *Hinnites* by Bernard (1986). Length: 233 mm (Wagner & Abbott, 1990).
- Genus *Cyclopecten* Verrill, 1897
Subgenus *Cyclopecten*, s. l.
- *Cyclopecten bistriatus* (Dall, 1916). Distribution: 23°N-46°N. Depth: 1100 to 1160 m (Bernard, 1983a).
- 187 *Cyclopecten exquisitus* Grau, 1959. Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983).
- *Cyclopecten graui* Knudsen, 1970. Length: 18 mm. Known only from Bahía de Panamá. Depth: 3270 to 3670 m (Knudsen, 1970).
- 188 *Cyclopecten incongruus* (Dall, 1916). Delete. Known only from the holotype from Isla Cedros (29°N), which is north of the Panamic Province (Bernard, 1983a).
- 190 *Cyclopecten pernomus* (Hertlein, 1935). Include the Islas Galápagos, Ecuador, in distribution (Grau, 1959). Depth: 2 to 1720 m (Hertlein & Grant, 1972).
- 191 *Cyclopecten polyleptus* (Dall, 1908). Genus changed from *Delectopecten*. Distribution: 0-52°S. Depth: 550 to 650 m (Bernard, 1983a). Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth to 35 m (F. & L. Poorman, 1988).
- Genus *Delectopecten* Stewart, 1930
- 191 *Delectopecten polyleptus* (Dall, 1908). Delete here. Genus changed. See *Cyclopecten*.
- 192 *Delectopecten randolphi* (Dall, 1897). Synonyms: *Pecten whiteavesi* Orcutt, 1915, nom. nud.; *P. (Pseudamussium) randolphi tillamookensis* Arnold, 1906; *P. (Pseudamussium) arces* Dall, 1913 (Bernard, 1983a).
- 193 *Delectopecten vitreus* (Gmelin, 1791). As *Cyclopecten*. Delete. Distribution (10°S-52°S) is not within the Panamic Province (Bernard, 1983a).
- Genus *Flabellipecten* Sacco, 1897
Raised from subgenus (Woodring, 1982; Moore, 1984).

176 *Flabellipecten berryi* (Bernard, 1983). Primary homonym of *Pecten berryi* Stephenson, 1923 (Coan, pers. comm., 1991). Synonym: *Pecten lunaris* Berry, 1963, *non* Römer, 1839. Preoccupied (Bernard 1983a). Holotype of *P. lunaris* figured (Hertz, 1984). Extend distribution south to Nicaragua (Montoya, López & López, 1987). Depth: 100 m (F. & L. Poorman, 1988).

--- *Flabellipecten diegensis* (Dall, 1898). Diameter: 100 mm. Depth: 30 m. Distribution: Bodega Bay, California, to Cabo San Lucas, Baja California Sur, Mexico (McLean, 1978). Distribution: 23°N-38°N. Depth: 10 to 375 m (Bernard, 1983a).

177 *Flabellipecten sericeus* Hinds, 1845. Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983). Length: 108 mm (Draper, 1987). Depth: 183 m (Skoglund, 1988).

Genus *Hyalopecten* Verrill, 1897

Raised from subgenus (Bernard, 1983a).

--- *Hyalopecten neocanicus* (Dall, 1908). Height: 12 mm. Holotype figured. Islas Galápagos, Ecuador (Grau, 1959). Distribution: Bahía de Panamá to the Islas Galápagos, Ecuador. Depth: 3270 to 3670 m (Knudsen, 1970). Genus changed from *Pecten (Pseudamussium)* (Bernard, 1983a).

Genus *Leptopecten* Verrill, 1897

Subgenus *Leptopecten*, s. s.

195 *Leptopecten (L.) biolleyi* (Hertlein & Strong, 1946). Regarded as a subspecies of *Leptopecten velero* (Hertlein, 1935) [199] (Cruz-P., 1977) and as a full species (Bernard, 1983a).

196 *Leptopecten (L.) camerella* (Berry, 1968). Holotype figured (Hertz, 1984).

197 *Leptopecten (L.) euterpes* (Berry, 1957). Holotype figured (Hertz, 1984).

--- *Leptopecten (L.) latiaurata* (Conrad, 1837). Range: Point Reyes, California, to Cabo San Lucas, Baja California Sur, Mexico. Depth: subtidal to 229 m (Hertlein & Grant, 1972). Genus changed from *Chlamys*. Synonyms: *Pecten latiauritus*, *nom. van. auctt.*; *P. monotimeris* Conrad, 1837; *P. tunica* Philippi, 1844; *P. latiauritus fuciculus* Dall, 1898; *P. (Chlamys) latiauritus fragilis* Arnold, 1903, *non*

P. fragilis DeFrance, 1825; *P. (Chlamys) latiauritus bellilamellatus* Arnold, 1903; *P. (Chlamys) latiauritus cerritensis* Arnold, 1906; *P. (Chlamys) latiauritus delosi* Arnold, 1906. Range 23°N-38°N (Bernard, 1983a).

198 *Leptopecten (L.) palmeri* (Dall, 1897). Depth: 100 m (F. & L. Poorman, 1988). Length: 71 mm (Wagner & Abbott, 1990).

199 *Leptopecten (L.) velero* (Hertlein & Strong, 1946). Extend distribution across the Gulf of California to Bahía San Carlos, Sonora, Mexico. Depth: 100 m (F. & L. Poorman, 1988).

Genus *Nodipecten* Dall, 1898

Raised from subgenus (Woodring, 1982; Moore, 1984).

201 *Nodipecten magnificus* (Sowerby, 1835). Restricted to the Islas Galápagos, Ecuador; not found on the mainland (Keen & Coan, 1975). Length: 206 mm (Wagner & Abbott, 1990).

202 *Nodipecten subnodosus* (Sowerby, 1835). Include Isla del Coco, Costa Rica, in distribution (Montoya, 1983). Add synonym: *Pecten (Lyropecten) pitteri* Dall, 1912. Depth: intertidal zone to 110 m (Bernard, 1983a). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Distribution confirmed to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988). Extend distribution north to Isla Cedros, Mexico (McPeak, 1988). Length: 224 mm (Wagner & Abbott, 1990).

Genus *Oppenheimopecten* Von Teppner, 1922
Raised from subgenus (Moore, 1984).

179 *Oppenheimopecten hancocki* (Grau, 1959). Extend distribution south to the Islas Galápagos, Ecuador (Finet, 1985).

180 *Oppenheimopecten perulus* (Olsson, 1961). Extend distribution north to Nicaragua (Montoya, López & López, 1987). Length: 36.6 mm (Wagner & Abbott, 1990).

181 *Oppenheimopecten vogdesi* (Arnold, 1906). Distribution: 1°S-28°N (Bernard, 1983a). Length: 111 mm (Wagner & Abbott, 1990).

Genus *Pacipecten* Olsson, 1961

Raised from subgenus (Moore, 1984).

200 *Pacipecten tumbezensis* (Orbigny, 1846). Length: 45 mm (Draper, 1987).

Genus *Pseudamussium* Mörch, 1853
Subgenus *Peplum* Bucquoy, Dautzenberg & Dollfus, 1888

204 *Pseudamussium (P.) fasciculatum* (Hinds, 1845). Extend distribution north to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).

Family PROPEAMUSSIIDAE Abbott, 1954
Used by Waller (1971)
Genus *Propeamussium* Gregorio, 1884

203 *Propeamussium meridioale* (Smith, 1885). Synonym: *Amusium (P.) malpelonium* Dall, 1908. Length: 17 mm. Distribution: Gulf of Panama; Pacific, Antarctic, and Indian Oceans. Depth: 1900-4820 m (Knudsen, 1970).

Family SPONDYLIDAE
Genus *Spondylus* Linnaeus, 1758

210 *Spondylus calcifer* Carpenter, 1857. Include Isla del Coco, Costa Rica, in distribution (Bakus, 1975). Depth: 2 to 55 m (Bernard, 1983a). Length: 267 mm (Wagner & Abbott, 1990).

--- *Spondylus linguae felis* Sowerby, 1847. Synonym: *Spondylus gloriosus* Dall, Bartsch & Rehder, 1938; *S. mimus* Dall, Bartsch & Rehder, 1938; *S. kuaiensis* Dall, Bartsch & Rehder, 1938 (Kay, 1979). Lamprell (1987) gives the distribution as the Solomon Islands, Hawaii, Philippine Islands and Australia, but fails to cite the L'île Clipperton distribution.

--- *Spondylus nicobaricus* Schreibers, 1793. Extend distribution to Isla del Coco, Costa Rica (Shasky, 1983). Synonyms: *S. hystrix* Röding, 1798; *S. radians* Lamarck, 1819; *S. aculeatus* Broderip, 1833; *S. ciliatus* Sowerby, 1847; *S. coccineus* Sowerby & Reeve, 1847; *S. serratissimus* Dall, Bartsch & Rehder, 1938; *S. lindae* Iredale, 1939; *S. percea* Iredale, 1939; Distribution: Australia; Comoros; Madagascar; Hawaii; Mauritius; Philippines; Solomon Islands (Lamprell, 1987).

211 *Spondylus princeps* Broderip, 1833, non Schreibers, 1793. Preoccupied (Coan, pers. comm., 1991) Include L'île Clipperton (France), in distribution (Perrin, 1977). Depth:

21 to 41 m (Shasky, 1980). Add synonyms: *Spondylus unicolor* Sowerby, 1847 [212]; *S. limbatus* Sowerby, 1847. Distribution: 5°S-28°N. Depth: 2 to 40 m (Bernard, 1983a). Synonym: *S. victoriae* Sowerby of Durham, 1950, non Sowerby, 1859 (Moore, 1987). Length: 202 mm (Draper, 1987).

--- *Spondylus tenebrosus* Reeve, 1856. Synonym: *Spondylus hawaiensis* Dall, Bartsch & Rehder, 1938. Recorded from L'île Clipperton, (France) (Emerson, 1978). Distribution: 10°N (L'île Clipperton); western Pacific, intertidal zone (Bernard, 1983a).

212 *Spondylus princeps unicolor* Sowerby, 1847. Delete. Becomes a synonym of *S. princeps* Broderip, 1833 [211] (Bernard, 1983a).

213 *Spondylus ursipes* Berry, 1959. Abbott (1974) regarded *S. ursipes* as a synonym of *S. calcifer* Carpenter, 1857. A valid species. Distribution: 27°N-31°N, 10 to 25 m (Bernard, 1983a). Holotype figured (Hertz, 1984). Height: 152.5 mm (Wagner & Abbott, 1990).

--- *Spondylus victoriae* (Sowerby, 1859). Distribution: 26°N-30°N. Depth: 10 to 40 m (Bernard, 1983a). Delete. Known only from northwestern Australia and the Northern Territory (Lamprell, 1987).

Order LIMOIDA Waller, 1978

Superfamily LIMACEA

Family LIMIDAE

Genus *Lima* Bruguière, 1797

Subgenus *Lima*, s. s.

214 *Lima (L.) tetrica* Gould, 1851. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 74.3 mm (Draper, 1987). Depth: intertidal zone to 35 m (F. & L. Poorman, 1988).

Genus *Acesta* H. & A. Adams, 1858
Raised from subgenus (Bernard, 1983a; Moore, 1987).

Subgenus *Acesta*, s. s.

216 *Acesta (A.) diomedae* (Dall, 1908). Genus changed from *Lima* (Bernard, 1983a).

215 *Acesta (A.) patagonica* (Dall, 1902). Synonym: *Lima agassizii* Dall, 1902. Genus changed from *Lima*. Distribution: 14°S-53°S except for a single valve from Bahía de Panama which

Bernard (1983a) states is probably a misplaced specimen.

Genus *Limaria* Link, 1807

Raised from subgenus. Synonyms: *Submantellum* Olsson & Harbison, 1953; *Promantellum* Iredale, 1939 (Vokes, 1973).

Subgenus *Limaria*, s. s.

- 217 *Limaria* (L.) *hemphilli* (Hertlein & Strong, 1946). Extend distribution south to Tumbes, Peru (Peña, 1971). Shell figured (Gemmell, Myers & Hertz, 1981). Length: 37 mm (Draper, 1987).
- 220 *Limaria* (L.) *orbignyi* (Lamy, 1930). Shell figured (Gemmell, Myers & Hertz, 1981). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 32.2 mm (Draper, 1987).
- 219 *Limaria* (L.) *pacifica* (Orbigny, 1846). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 32.5 mm (Draper, 1987).

Genus *Limatula* Wood, 1839

Raised from subgenus (Abbott, 1974).

- 218 *Limatula* *similaris* (Dall, 1908). Distribution: 9°S-28°N (Bernard, 1983a). Extend distribution across Gulf of California to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).

Superfamily ANOMIACEA

Family ANOMIIDAE

Genus *Anomia* Linneaus, 1758

Subgenus *Anomia*, s. s.

- 221 *Anomia* (A.) *adamas* Gray, 1850. Extend distribution south to Pimentel, Peru (Peña, 1971). Depth: intertidal zone to 35 m (F. & L. Poorman, 1988).

- 222 *Anomia* (A.) *fidenas* Gray, 1850. Distribution: 9°N-25°N (Bernard, 1983a).

- 223 *Anomia* (A.) *peruviana* Orbigny, 1846. Add synonyms: *?Anomia laqueata* Reeve, 1859; *A. limatula* Dall, 1878. Add L'île Clipperton (France), and the Islas Galápagos, Ecuador, to distribution. Depth: intertidal zone to 130 m (Bernard, 1983a). Length: 84.4 mm (Draper, 1987).

Genus *Pododesmus* Philippi, 1837
Subgenus *Pododesmus*, s. s.

- 226 *Pododesmus* (P.) *foliatus* (Broderip, 1834).
Synonym: *Pododesmus puntarensis* Soot-Ryen, 1952. Distribution: 4°S-23°N (Bernard, 1983a).

Subgenus *Monia* Gray, 1850

- 227 *Pododesmus* (M.) *macroschisma* (Deshayes, 1839). Add synonym: *?Placunanomia alope* Gray, 1849 (Keen & Coan, 1975). Widely distributed on both sides of the northern Pacific. Shell and anatomy figured (Yonge, 1977). Distribution: 28°N-58°N (Bernard, 1983a). Synonyms: *Pododesmus* (M.) *cepio* (Gray, 1850); *?Pododesmus newcombei* Arnold & Clark, 1923. Delete *?Placunanomia alope* Gray, 1849, as a synonym. Distribution: Alaska to Baja California Sur, Mexico; Japan (Moore, 1987). Length: 128.4 mm (Draper, 1987). Extend distribution into the Gulf of California to Bahía San Carlos, Sonora, Mexico. On pilings in estero (F. & L. Poorman, 1988). Delete distribution to Bahía San Carlos, Sonora, Mexico (Poorman, pers. comm., 1990).

Subgenus *Tedinia* Gray, 1853

- 228 *Pododesmus* (T.) *pernoides* (Gray, 1853). Extend distribution south to Oaxaca, Mexico (Abbott, 1974).

Family PLACUNIDAE Yonge, 1977

Genus *Placunanomia* Broderip, 1832

- 224 *Placunanomia cumingii* Broderip, 1832. Shell and anatomy figured (Yonge, 1977). Length: 89.6 mm (Draper, 1987). Extend distribution north to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).

Subclass HETERODONTA

Order VENEROIDA

Superfamily CRASSATELLACEA

Family CRASSATELLIDAE

Follows Coan (1979, 1984a).

Subfamily CRASSATELLINAE Féussac, 1822

Genus *Eucrassatella* Iredale, 1924

Synonyms: *Hybolophus* Stewart, 1930; *Eucrassinella* Cruz-P., 1980 (Coan, 1984a).

- 229 *Eucrassatella antillarum* (Reeve, 1842). Lectotype figured. Add synonyms: *Crassatella laevis* A. Adams, 1854; *C. adelinae* Tryon, 1872; *C. digueti* Lamy, 1917; *Crassatellites laronus* Jordan, 1932; *Eucrassinella manabiensis* Cruz-P., 1980 [in part]. Length: 105.2 mm. Distribution: Cabo San Lucas, Baja California Sur, Mexico, throughout the Gulf of California, to Playas, Guayas Province, Ecuador; Venezuela. Depth: 5 to 206 m (Coan, 1984a). Length: 105.2 mm (Draper, 1987).
- 230 *Eucrassatella gibbosa* Sowerby, 1832. Lectotype figured. Add synonyms: *Eucrassatella (Hybolophus) gibbosa tucilla* Olsson, 1932; *Eucrassinella manabiensis* and *E. aequitorialis* Cruz-P., 1980. Length: 87.4 mm. Distribution: Bahía San Juanico, west coast of Baja California Sur, Mexico, throughout the Gulf of California, to Paita, Piura Province, Peru. Depth: 5 to 110 m (Coan, 1984a). Length: 87.4 mm (Draper, 1987).
- Subfamily SCAMBULINAE Chavan, 1952
Genus *Crassinella* Guppy, 1874.
Synonym: *Pseuderiphylla* Fischer, 1887 (Coan, 1979).
- 231 *Crassinella adamsi* Olsson, 1961. Depth: 90 m (Cruz-P., 1977). Holotype figured. Depth: 9 to 100 m (Coan, 1979). *Crassinella aduncata* Weisbord, 1964, is a cognate species in the Caribbean (Coan, 1984a).
- *Crassinella coxa* Olsson, 1964. Holotype figured. Length: 2.3 mm. Distribution: west coast of Baja California Sur; Isla Coronados, Gulf of California; Bahía San Ignacio, Sinaloa, Mexico, south to Colombia. Depth: 36 to 160 m (Coan, 1979).
- 232 *Crassinella ecuadoriana* Olsson, 1961. Depth: 51 m (Cruz-P., 1977). Holotype figured. Length: 4.4 mm. Add La Paz, Baja California Sur, Mexico, to distribution. Depth: low intertidal zone to 55 m (Coan, 1979).
- 233 *Crassinella mexicana* Pilsbry & Lowe, 1932. Delete. Becomes synonym of *Crassinella pacifica* (C. B. Adams, 1852) [234] (Coan, 1979).
- *Crassinella nuculiformis* Berry, 1940. Holotype figured. Synonym: *Crassinella clementia* Pilsbry & Olsson, 1941. Length: 5.3 mm. Distribution: Isla Cedros, west coast of Baja California, to

- and throughout the Gulf of California, south to Ecuador. Depth: low intertidal zone to 62 m (Coan, 1979). *Crassinella maldonadoensis* (Pilsbry, 1897) is a cognate species from Uruguay (Coan, 1984a).
- 234 *Crassinella pacifica* (C.B. Adams, 1852). Depth to 90 m (Cruz-P., 1977). Holotype figured. Synonyms: *Crassinella quentinensis* Manger, 1934; *C. branneri* Arnold, 1903; *C. mexicana* Pilsbry & Lowe, 1932 [233]. Length: 10 mm. Distribution: Orange County, California, along the outer coast of Baja California, to and throughout the Gulf of California, Mexico, and south to Tumbes Province, Peru. Depth: low intertidal zone to 158 m (Coan, 1979).
- *Crassinella skoglundae* Coan, 1979. Holotype figured. Length: 5.9 mm. Distribution: Bahía de las Banderas, Nayarit, to Acapulco, Guerrero, Mexico. Depth: 11 to 28 m (Coan, 1979).
- 235 *Crassinella varians* (Carpenter, 1857). Length: 3.3 mm. Extend distribution north to Cabo Tepoca, Sonora, Mexico (Skoglund, 1974). Depth: 90 m (Cruz-P., 1977). Lectotype figured. Synonyms: *Crassinella goldbaumi* Jordan, 1936; *C. haylocki* Pilsbry & Olsson, 1941. Distribution: Bahía San Juanico, Baja California Sur, to and throughout the Gulf of California, Mexico, and south to the Gulf of Guayaquil, Ecuador. Depth: low intertidal zone to 113 m (Coan, 1979). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985).
- Family CARDINIIDAE
Genus *Tellidorella* Berry, 1963
- 236 *Tellidorella cristulata* Berry, 1963. Extend distribution south to Esmeraldas, Ecuador (Cruz-P., 1977). Holotype figured (Hertz, 1984). Depth: 110 m (F. & L. Poorman, 1988).
- Superfamily CARDITACEA
Family CARDITIDAE
Subfamily CARDITINAE Bernard, 1983a
Genus *Cardita* Bruguière, 1792
- *Cardita aviculina* (Lamarck, 1819). Synonyms: *Cardita hawaiensis* Dall, Bartsch & Rehder, 1938; *C. cruda* Dall, Bartsch & Rehder, 1938;

C. laysana Dall, Bartsch & Rehder, 1938. Height: 10 mm. Distributed throughout the Indo-Pacific (Kay, 1979). Extend distribution to Isla del Coco, Costa Rica (Shasky, 1985). Figured (Shasky, 1986b).

Subfamily CARDITESINAE Chavan, 1969

Genus *Cardites* Link, 1807

Raised from subgenus (Abbott, 1974).

239 *Cardites crassicostata* (Sowerby, 1825). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 75.5 mm (Wagner & Abbott, 1990).

240 *Cardites grayi* (Dall, 1903). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 47.3 mm (Wagner & Abbott, 1990).

241 *Cardites laticostata* (Sowerby, 1833). Add synonyms: *Cardita turgida* Valenciennes, 1856; *C. reeveana* Clessin, 1888. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 51.5 mm (Wagner & Abbott, 1990).

Genus *Strophocardia* Olsson, 1961

Raised from subgenus (Bernard, 1983a).

244 *Strophocardia megastropha* (Gray, 1825). Length: 57.5 mm (Wagner & Abbott, 1990).

Subfamily CARDITAMERINAE Chavan, 1969

Genus *Carditamera* Conrad, 1838

Raised from subgenus (Abbott, 1974).

237 *Carditamera affinis* Sowerby, 1833. Extend distribution south to Mánpora, Peru (Olsson, 1961). Changed from genus *Cardita* (Abbott, 1974). As genus *Cardita* (*Byssomera*). Add synonyms: *Cardita volucris* Reeve, 1843; *?Cardita incrassatus* Carpenter, 1857. Distribution: 4°S-29°N, including the Islas Galápagos, Ecuador (Bernard, 1983a). Length: 101.2 mm (Draper, 1987).

238 *Carditamera radiata* (Sowerby, 1833).

Genus *Cyclocardia* Conrad, 1867.

Raised from subgenus (Hertlein & Grant, 1972).

242 *Cyclocardia beebei* (Hertlein, 1958). Extend

distribution south to Pimentel, Peru (as *C. s. beebei*) (Peña, 1971). Not a subspecies of *Cardita spurca* Sowerby, 1833 (Bernard, 1983a). Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth: 100m (F. & L. Poorman, 1988).

Genus *Pleuromeris* Conrad, 1867

Raised from subgenus (Abbott, 1974).

243 *Pleuromeris guanica* Olsson, 1961.

Superfamily CORBICULACEA

Family CORBICULIDAE

Genus *Polymesoda* Rafinesque, 1828

Subgenus *Polymesoda*, s. s.

--- *Polymesoda* (*P.*) *acuta* (Prime, 1861). Distribution: 1°N, intertidal zone (Bernard, 1983a).

247 *Polymesoda* (*P.*) *mexicana* (Broderip & Sowerby, 1829). Add synonym: *Cyrena insignis* Deshayes, 1855 (Bernard, 1983a).

Subgenus *Egeta* H. & A. Adams, 1858

249 *Polymesoda* (*E.*) *altilis* (Gould, 1853). Distribution: 12°N-23°N (Bernard, 1983a).

250 *Polymesoda* (*E.*) *anomala* (Deshayes, 1855). Add synonyms: *Cyrena* (*Anomala*) *cumingii* Deshayes, 1855; *C. cardiformis* Sowerby, 1876. Delete as synonym: *C. peruviana* Deshayes, 1855 (Bernard, 1983a).

251 *Polymesoda* (*E.*) *inflata* (Philippi, 1851). Correct dates on synonyms *Cyrena maritima* C.B. Adams, 1852, *non* Orbigny, 1842, and *Cyrena panamensis* Prime, 1861 (Keen & Coan, 1975). Add synonyms: *Cyrena peruviana* Deshayes, 1854; *C. bullata* Sowerby, 1878. Delete as synonym: *C. cardiformis* Sowerby, 1878 (Bernard, 1983a).

Subgenus *Neocyrena* Crosse & Fischer, 1894

253 *Polymesoda* (*N.*) *fontainei* (Orbigny, 1844). Distribution: 1°S-18°S (Bernard, 1983a).

255 *Polymesoda* (*N.*) *nicaraguana* (Prime, 1869). Distribution: 8°N-12°N (Bernard, 1983a).

--- *Polymesoda* (*N.*) *triangulata* (Busch, 1849). Distribution: 23°N, intertidal (Bernard, 1983a).

Superfamily DREISSENACEA
 Family DREISSENIDAE
 Genus *Mytilopsis* Conrad, 1858

- 257 *Mytilopsis adamsi* Morrison, 1946. Bernard (1983a) makes *Mytilopsis adamsi* Morrison, 1946, and *M. zeteki* Hertlein & Hanna, 1949 [259], synonyms of *Mytilopsis leucophaeta* (Conrad, 1858) and includes the Caribbean and North Atlantic in distribution. Marelli & Gray (1983) redescribe and figure *M. leucophaeta* and confine it to the brackish waters of the Atlantic.
- *Mytilopsis sallei* (Récluz, 1849). Extend distribution to the Gatún and Miraflores Locks, Panama Canal (Rosewater, 1976). Synonyms: *Dreissena domingensis* Récluz, 1852; *Tichogonia pfeifferi* Dunker, 1853; *T. rossmaessleri* Dunker, 1853; *T. riisei* Dunker, 1853; *Dreissenia gundlachii* Dunker, 1855; *D. moerchiana* Dunker, 1855; *Mytilopsis allyneana* Hertlein & Hanna, 1949. Redescribed and figured. Distribution: brackish waters in southern Florida; Yucatan, Mexico, to Venezuela; West Indies. Introduced to Fiji and eastern India (Marelli & Gray, 1983).

Superfamily GLOSSACEA
 Family VESICOMYIDAE
 Genus *Vesicomya* Dall, 1886
 Subgenus *Vesicomya*, s. s.

- 261 *Vesicomya (V.) ovalis* (Dall, 1896). Distribution: Alaska to Panama (Abbott, 1974).
- *Vesicomya (V.) stearnsii* (Dall, 1895). Distribution: La Jolla, California, to the Gulf of California, Mexico (Abbott, 1974). Delete. Distribution: 45°N-48°N, is not within the Panamic Province (Bernard, 1983a).

Subgenus *Callogonia* Dall, 1889

- *Vesicomya (C.) suavis* Dall, 1913. As subgenus *Archivesica*. Length: 34 mm. West of Isla Tiburón, Gulf of California, Mexico. Depth: 1345 m (Dall, 1913). Subgenus changed from *Archivesica* (Bernard, 1983a).

Genus *Calyptogena* Dall, 1891
 Subgenus *Archivesica* Dall, 1908

- 262 *Calyptogena (A.) gigas* (Dall, 1908). Distribution: Point Sur, California, to the Gulf of California, Mexico (Abbott, 1974). Genus changed from *Vesicomya*. Distribution: 27°N-52°N (Bernard, 1983a).

Subgenus *Ectenagena* Woodring, 1938

- *Calyptogena (E.) magnifica* Boss & Turner, 1980. Length: 263 mm. Galápagos Rift thermal vents. Also known from the East Pacific Rise vents. Depth: 2600 m (Boss & Turner, 1980).

Superfamily ARCTICACEA
 Family KELLIELLIDAE Fischer, 1887
 Genus *Kelliella* M. Sars, 1870

- *Kelliella galathea* Knudsen, 1970. Length: 5.2 mm. Distribution: off southern Baja California, Mexico. Depth: 2950 to 3570 m (Knudsen, 1970). Distribution: 6N-48N (Bernard, 1983a).

Superfamily LUCINACEA
 Family LUCINIDAE
 Subfamily LUCININAE
 Genus *Lucina* Bruguière, 1797
 Subgenus *Callucina* Dall, 1901

- 268 *Lucina (C.) lampra* (Dall, 1901). As subgenus *Cavilinga* (Bretsky, 1976). Drawing of figured type (Gemmell, Myers & Hertz, 1987). Length: 19.2 mm (Draper, 1987). As subgenus *Callucina* (Moore, 1988).

- 269 *Lucina (C.) lingualis* Carpenter, 1864. As subgenus *Cavilinga* (Bretsky, 1976). As subgenus *Callucina* (Moore, 1988).

- 270 *Lucina (C.) prolongata* Carpenter, 1857. Add Gulf of California to distribution (Keen & Coan, 1975). Extend distribution south to Esmeraldas, Ecuador. Depth to 90 m (Cruz-P., 1977). Changed from subgenus *Cavilinga* (Bernard, 1983a).

Subgenus *Lucinisca* Dall, 1901
 As a genus (McLean, 1978), and as a subgenus (Bernard, 1983a).

- 272 *Lucina (L.) centrifuga* (Dall, 1901). Extend distribution south to Paita, Piura Province, Peru (as *L. liana*) (Peña, 1971). Depth:

- intertidal zone to 100 m. Distribution: 4°S-29°N, including the Islas Galápagos, Ecuador (Bernard, 1983a). Length: 24 mm (Draper, 1987).
- 273 *Lucina (L.) fenestrata* Hinds, 1845. Synonyms: *Lucina ochracea* Reeve, 1850; *L. (Lucinisca) fausta* Pilsbry & Olsson, 1941 (Bernard, 1983a). Length: 49.3 mm (Draper, 1987).
- *Lucina (L.) nuttalli* Conrad, 1837. Distribution: Santa Barbara, California, to San Felipe, Baja California; Punta Peñasco, Sonora, south to Manzanillo, Colima, Mexico. Depth: littoral zone to 461 m (Hertlein & Grant, 1972). Include Islas Tres Marias, Mexico, in distribution (McLean, 1978). Distribution: 22°N-37°N. Depth: 10 to 75 m (Bernard, 1983a). Length: 31.3 mm (Draper, 1987).
- Genus *Here* Gabb, 1866
- Used as subgenus of *Linga* by Abbott (1974), and as a genus by Bernard (1983a) and Moore (1988).
- Subgenus *Here*, s. s.
- 271 *Here (H.) excavata* (Carpenter, 1857). Synonym: *Lucina richthofeni* Gabb, 1866. Distribution: San Pedro, California, to Mazatlán, Sinaloa, Mexico (Hertlein & Grant, 1972). Good drawings (Gemmell, Myers & Hertz, 1987).
- Genus *Parvilucina* Dall, 1901
- As a genus (Abbott, 1974), a subgenus (Bernard, 1983a), and a genus (Moore, 1988).
- Subgenus *Parvilucina* s. s.
- 274 *Parvilucina (P.) approximata* (Dall, 1901). Extend distribution north to Monterey, California (Abbott, 1974).
- 275 *Parvilucina (P.) mazatlanica* (Carpenter, 1857). Distribution: Gulf of California, Mexico, to Ecuador (Abbott, 1974).
- Genus *Linga* de Gregorio, 1884
- Subgenus *Pleurolucina* Dall, 1901
- 276 *Linga (P.) cancellaris* (Philippi, 1846). Extend distribution into the Gulf of California near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). *Radio lucina* as a subgenus (Britton, 1972). As *Linga (Bellucina)* by Abbott (1974). Distribution: 28°N-31°N (Bernard, 1983a). Extend distribution into the Gulf of California at Bahía San Carlos, Sonora, Mexico. Depth to 100 m (F. & L. Poorman, 1988). As *Linga (Pleurolucina)* by Moore (1988).
- 277 *Linga (P.) leucocymoides* (Lowe, 1935). Genus changed from *Lucina* (Abbott, 1974). Length: 17.5 mm (Draper, 1987). Extend distribution to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).
- 278 *Linga (P.) undatoides* (Hertlein & Strong, 1945). Genus changed from *Lucina* (Abbott, 1974). Extend distribution to Bahía de los Angeles, Baja California, Mexico. Depth: 15 to 18 m (Hertz, 1977).
- Genus *Codakia* Mörcz, 1860
- Subgenus *Codakia*, s. s.
- 279 *Codakia (C.) distinguenda* (Tryon, 1872). As subgenus *Ctena* by Abbott (1974). As *Codakia*, s. s. Include L'île Clipperton (France), in distribution (Bernard, 1983a). Extend distribution south to the Islas Galápagos, Ecuador (Finet, 1985). Include Isla Gorgona, Colombia, in distribution (Von Prahl, 1986). Occurs at San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987). Length: 142 mm (Draper, 1987).
- *Codakia (C.) punctata* (Linnaeus, 1758). Synonym: *Codakia thaanumi* Pilsbry, 1918. Distribution: 1°S-9°N, including L'île Clipperton (France) and the Islas Galápagos, Ecuador; Indo-Pacific. Depth: intertidal to 5 m (Bernard, 1983a).
- Subgenus *Epilucina* Dall, 1901
- *Codakia (Epilucina) californica* Conrad, 1837. As *Lucina (Epilucina)*. Synonym: *Lucina artemidis* Carpenter, 1857. Distribution: 17°N-42°N. Depth: 30 to 75 m (Bernard, 1983a). Genus changed from *Lucina*. Distribution: northern California to Baja California Sur, Mexico (Moore, 1988).

- Genus *Ctena* Mörch, 1860
 Subgenus *Ctena*, s. s.
Ctena as a subgenus of *Codakia* by Bretsky (1976), and as a genus (Moore, 1988).
- 280 *Ctena (C.) chiquita* (Dall, 1901). Extend distribution into the Gulf of California near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Distribution confined: 28°N-31°N (Bernard, 1983a). Extend distribution across the Gulf of California to Bahía San Carlos area, Sonora, Mexico (F. & L. Poorman, 1988).
- 281 *Ctena (C.) clarionensis* Hertlein & Strong, 1946. Extend distribution into the Gulf of California to the Bahía San Carlos area, Sonora, Mexico. Depth to 35 m (F. & L. Poorman, 1988).
- 282 *Ctena (C.) clippertonensis* Bartsch & Rehder, 1939. Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972).
- 283 *Ctena (C.) galapagana* (Dall, 1901). Extend distribution south to Pimentel, Peru (Peña, 1971). Height: 19 mm (Keen & Coan, 1975). Extend distribution north to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988). Delete distribution to Bahía San Carlos (Poorman, pers. comm., 1990).
- 284 *Ctena (C.) mexicana* (Dall, 1901). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Good drawings (Gemmell, Myers & Hertz, 1987). Length: 25.5 mm (Draper, 1987).
- Subfamily DIVARICELLINAE
 Genus *Divalinga* Chavan, 1951
 Subgenus *Divalinga*, s. s.
- 285 *Divalinga (D.) eburnea* (Reeve, 1850). Genus changed to *Divaricella* (Bretsky, 1976). As *Divaricella*. Hinge figured (Gemmell, Myers & Hertz, 1981). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Length: 27.5 mm (Draper, 1987). Extend distribution into the Gulf of California at Bahía San Carlos, Sonora, Mexico. Depth to 60 m (F. & L. Poorman, 1988). As *Divalinga (D.)* by Moore (1988).
- Subgenus *Viaderella* Chavan, 1951
- 286 *Divalinga (V.) perparvula* (Dall, 1901). Extend distribution north to Laguna de Agiabampo, Sonora/Sinaloa, Mexico (García-Cubas & Reguero, 1987).
- Subfamily MILTHINAE
 Genus *Miltha* H. & A. Adams, 1857
- 287 *Miltha xantusi* (Dall, 1905). Synonym: *Phacoides joannis* Dall, 1905. Distribution: Guaymas, Sonora, to Mazatlán, Sinaloa; La Paz to Cabo San Lucas, Baja California Sur, Mexico. Depth: 33 to 101 m (Hertlein & Grant, 1972). Synonym: *P. (Miltha) sanctaerucis* Arnold, 1910 (Bernard, 1983a).
- Genus *Pegophysema* Stewart, 1930
 Subgenus *Pegophysema*, s. s.
- 288 *Pegophysema (P.) edentuloides* (Verrill, 1870). Length: 92 mm (Goldsmith, 1971). Genus changed to *Anodontia* (Bretsky, 1976). As *Pegophysema*. Distribution: 28°N-30°N (Bernard, 1983a). As *Pegophysema (P.)* (Moore, 1988).
- Subfamily MYRTAEINAE
 Genus *Lucinoma* Dall, 1901
 As a subgenus (Bretsky, 1976), and a genus (Bernard, 1983a).
- *Lucinoma aequizonata* (Stearns, 1891). Distribution: Santa Barbara Islands, California, to Chile. Depth: 505 m (Abbott, 1974). Delete. Distribution restricted to 34°N-60°N (Bernard, 1983a).
- 289 *Lucinoma annulata* Reeve, 1850. Distribution: Alaska to Bahía Santa Inez, Baja California Sur, Mexico (Hertlein & Grant, 1972). Moved to genus *Miltha*, subfamily Milthinae (Bretsky, 1976). As subfamily Myrtaeinae, genus *Lucinoma*. Synonyms: *Lucinoma densilineata* Dall, 1916; *L. annulata densilirata* Dall, 1919; *Lucina spectabilis* Yokoyama, 1920; *Woodia concentrica* Yokoyama, 1920. Distribution: 33°N-60°N (Bernard, 1983a). Dredged Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988). Dredged at Isla Smith, Bahía de los Angeles, Baja California, Mexico. Depth: 183 m (Skoglund, 1988). Moved from subfamily Milthinae (Moore, 1988).

Family UNGULINIDAE
Genus *Diplodonta* Bronn, 1831
Subgenus *Diplodonta*, s. s.

- 291 *Diplodonta (D.) inezensis* (Hertlein & Strong, 1947). Extend distribution north to San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987). Extend distribution across Gulf of California to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1982). Length: 24.4 mm (Draper, 1987).
- *Diplodonta (D.) orbella* (Gould, 1851). Distribution: Monterey, California, to Punta Peñasco, Sonora, Mexico. Depth: Low tide zone to 110 m (Hertlein & Grant, 1972). Distribution: Pribilof Islands, Alaska, to the Gulf of California, Mexico (McLean, 1978). Holotype figured. Distribution: Monterey, California, throughout the Gulf of California, Mexico, to Panama (Hertz, Myers & Gemmell, 1982). Synonym: *Sphaerella tumida* Carpenter, 1864. Distribution: 8°N-60°N. Depth: intertidal zone to 65 m (Bernard, 1983a). Length: 35.1 mm (Draper, 1987).
- 292 *Diplodonta (D.) subquadrata* (Carpenter, 1856). Synonym: *Diplodonta subquadrata baltrana* Hertlein, 1972 (Bernard, 1983a). Syntype figured. Camera lucida drawings of hinge. Synonym: *Diplodonta suprema* Olsson, 1961 [293]. Holotype figured. Distribution: Isla San Benito on the west coast of Baja California, throughout the Gulf of California, to Ecuador including the Islas Galápagos (Hertz, Myers & Gemmell, 1982).
- 293 *Diplodonta (D.) suprema* Olsson, 1961. Delete. A synonym of *Diplodonta subquadrata* (Carpenter, 1856) [292] (Hertz, Myers & Gemmell, 1982).

Genus *Felaniella* Dall, 1899
Subgenus *Zemysia* Finlay, 1927

- 294 *Felaniella (Z.) obliqua* (Philippi, 1845). Synonym: *Lucina calculus* Reeve, 1850. Distribution: 10°N-42°S (Bernard, 1983a). Extend distribution north to Laguna de Topolobampo, Sinaloa, Mexico (García-Cubas & Reguero, 1987).
- 295 *Felaniella (Z.) cornea* (Reeve, 1850). Bernard (1983a) made *Felaniella sericata* (Reeve, 1850)

a synonym of *Felaniella (Z.) parilis* (Conrad, 1983). Valve interior figured (Gemmell, Myers & Hertz, 1987). Moore (1988) restricted *F. parilis* to fossil material and made *F. sericata* a synonym of *F. cornea*.

Genus *Phlyctiderma* Dall, 1899
Subgenus *Phlyctiderma*, s. s.

- 296 *Phlyctiderma (P.) discrepans* (Carpenter, 1857). Hinge dentition figured (Gemmell, Myers & Hertz, 1987). Depth: 35 m (F. & L. Poorman, 1988).

Subgenus *Pegmapex* Berry, 1960

- 299 *Phlyctiderma (P.) caelatum* (Reeve, 1850). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985).

- 300 *Phlyctiderma (P.) phoebe* (Berry, 1960). Holotype figured (Hertz, 1984). Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth: 35 m (F. & L. Poorman, 1988).

Family THYASIRIDAE
Subfamily THYASIRINAE
Dall, 1900 (Bernard, 1983a)
Genus *Conchocele* Gabb, 1866

- 302 *Conchocele excavata* (Dall, 1901). Add synonym: *Thyasira tricarinata* Dall, 1916. Genus changed from *Thyasira*. Distribution: 23°N-45°N. Depth: 800 to 2050 m. Shallow water (18 to 90 m) records from the Gulf of California, Mexico, are not for this species (Bernard, 1983a).

Subfamily AXINOPSIDINAE Bernard, 1983a
Genus *Adontorhina* Berry, 1947

- *Adontorhina cyclia* Berry, 1947. Distribution: Bahía de los Angeles, Gulf of California, Mexico; from the Bering Sea, Alaska, to Isla Guadalupe, Baja California, Mexico. Depth: 11.6 to 1886 m. Figured (Scott, 1986).

Superfamily GALEOMMATACEA
Family GALEOMMATIDAE
Genus *Bellascintilla* Coney, 1990

- *Bellascintilla parmaleeana* Coney, 1990. Length: 4.5 mm. Shell and hinge figured. Distribution: Rancho El Tule, Baja California Sur, Mexico, to Isla Salango, Manabí Province, Ecuador (Coney, 1990).

Genus *Cymatioa* Berry, 1964

- 303 *Cymatioa dubia* (Deshayes, 1856). Distribution: 1°S-3°S. Depth: intertidal zone to 10 m (Bernard, 1983a).

- 304 *Cymatioa electilis* (Berry, 1963). Hinge figured (Gemmell, Myers & Hertz, 1981). Distribution: 1°S-28°N (Bernard, 1983a). Holotype figured (Hertz, 1984). Found attached to the burrow of the shrimp *Axius* (Baldwin, 1990). Correct shrimp name to *Axiopsis* cf. *A. serratifrons* (A. Milne Edwards, 1873) (Hertz [ed.], 1990).

Genus *Galeonimella* Habe, 1958

- 306 *Galeonimella peruviana* (Olsson, 1961). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).

Genus *Tryphomyax* Olsson, 1961

- 307 *Tryphomyax leridoformis* Olsson, 1961. Regarded as a synonym of *Tryphomyax mexicanus* (Berry, 1959) [308] by Bernard (1983a). Valid species. Shell and hinge figured. Single valve reported from Bahía la Cholla, Sonora, Mexico, may be a labeling error, as all others of this species are from Panama (Coney, 1990).

- 308 *Tryphomyax mexicanus* (Berry, 1959). Synonym: *Tryphomyax leridoformis* Olsson, 1961 [307]. Distribution: 9°N-31°N (Bernard, 1983a). Holotype figured (Hertz, 1984). Delete *T. leridoformis* Olsson as a synonym. Shell and hinge figured. Distribution: throughout the Gulf of California as far south as Punta Arena, Baja California Sur, Mexico (Coney, 1990).

Family ERYCINIDAE

Subfamily ERYCINIINAE

- Deshayes, 1850 (Bernard, 1983a)
Genus *Amerycina* Chavan, 1959

- 309 *Amerycina colpoica* (Dall, 1913). Extend distribution to the Islas Galápagos, Ecuador (Bernard, 1983a).

- 310 *Amerycina cultrata* Keen, 1971. Extend distribution north to Guaymas, Sonora, Mexico. Depth: 91 m (Keen & Coan, 1975).

Subfamily LASAEINAE

Gray, 1842 (Bernard, 1983a)

Genus *Lasaea* Brown, 1827, ex Leach MS

- *Lasaea cistula* Keen, 1938. Distribution: British Columbia to Peru (Abbott, 1974). Synonym: *Erycina catalinae* Dall, 1916, *nom. nud.* Delete. Distribution (28°N-40°N), is north of the Panamic Province (Bernard, 1983a).

- 311 *Lasaea subviridis* Dall, 1899. *Lasaea adansoni* (Gmelin, 1871) used with *L. subviridis* as a subspecies. Distribution: Monterey California to La Paz, Baja California Sur, Mexico; southeastern Florida; Bermuda; Brazil; Europe (Abbott, 1974). *L. subviridis* as a species. Synonym: *Lasaea rubra subviridis* Stearns, 1894, ex Carpenter MS. Distribution: 23°N-55°N (Bernard, 1983a). Delete *Lasaea rubra subviridis* Stearns, 1894, *nom. nud.*, as a synonym. Syntypes designated for *Lasaea subviridis* Dall, 1899 (Coan, 1987). Cannot be distinguished from *Lasaea cistula* Keen, 1938, by morphology alone (O Foighil & Eernisse, 1988).

Genus *Pseudopythina* Fischer, 1878

- *Pseudopythina compressa* (Dall, 1899). Length: 18 mm. Distribution: Alaska to Acapulco, Guerrero, Mexico, as genus *Neaeromya*, family Leptonidae. Depth: 7 to 51 m (Abbott, 1974). Family and genus changed. Depth: 258 m (Rosewater, 1984).

- *Pseudopythina muris* Rosewater, 1984. Off northwestern Peru. Depth: 90 to 133 m. Living in the respiratory cavity of the sea mouse *Aphrodita japonica* (Rosewater, 1984).

- 341 *Pseudopythina stearnsii* (Dall, 1899). Genus changed from *Sportella* to *Neaeromya*, family Leptonidae (Abbott, 1974). Changed to family Lasaeidae, genus *Pseudopythina* by Rosewater (1984).

Family KELLIIDAE

Subfamily KELLIINAE

Forbes & Hanley, 1989 (Bernard, 1983a)
Genus *Kellia* Turton, 1822

- *Kellia laperoussii* (Deshayes, 1839). Length: 25 mm. Depth: intertidal zone to sublittoral depths. Distribution: Bering Sea, Alaska, to the Gulf of California, Mexico (McLean, 1978). Delete. Becomes a synonym of *Kellia suborbicularis* (Montagu, 1803) [312] (Bernard, 1983a).
- 312 *Kellia suborbicularis* (Montagu, 1803). Synonyms: *Tellimya lactea* Brown, 1827; *T. tenuis* Brown, 1827; *?Bornia inflata* Philippi, 1836; *Chironia laperoussii* Deshayes, 1839; *Bornia luticola* Valenciennes, 1846; *Kellia rotundata* Carpenter, 1864. Distribution: 4°S-60°N, circumboreal; Mediterranean. Depth: intertidal zone to 20 m (Bernard, 1983a). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Depth: 60 m (F. & L. Poorman, 1988).

Genus *Aligena* Lea, 1846

- 324 *Aligena cokeri* Dall, 1909. Attaches to tubes of annelid worm *Mesochaetopterus alipes* Monroe, 1933 (Rosewater, 1976).
- 325 *Aligena nucea* Dall, 1913. Hinge figured. Extend distribution south to Panama (Gemmell, Myers & Hertz, 1987).
- 334 *Aligena obliqua* (Harry, 1969). Genus changed from *Orobitella*. Valve interior figured. Extend distribution north to San Felipe, Baja California, and Puerto Peñasco, Sonora, Mexico (Gemmell, Myers & Hertz, 1987).

Subfamily BORNIINAE Bernard, 1983a
Genus *Bornia* Philippi, 1836

- 313 *Bornia chiclaya* Olsson, 1961. Extend distribution north to San Felipe, Baja California, Mexico (Hertz, 1976). Hinge dentition figured (Gemmell, Myers & Hertz, 1987).
- 315 *?Bornia obtusa* (Carpenter, 1857). Delete here. Holotype is a juvenile *Mysella* of unknown species (Bernard, 1975). See *Mysella*.
- 316 *Bornia papyracea* (Deshayes, 1856). As genus *Rhamphidonta* (Bernard, 1975). As *Bornia*.

Depth: 10 to 50 m (Bernard, 1983a).

Genus *Solecardia* Conrad, 1849

- 322 *Solecardia eburnea* Conrad, 1849. Hinge figured (Gemmell, Myers & Hertz, 1981). Synonym: *Scintilla cumingii* Deshayes, 1856 (Bernard, 1983a). Length: 27.1 mm (Draper, 1987). Depth: 60 m (F. & L. Poorman, 1988).
- 323 *?Solecardia obliqua* (Sowerby, 1862). Delete. *Nom. dub.* (Bernard, 1983a).

Family LEPTONIDAE
Genus *Lepton* Turton, 1822

- 320 *Lepton ellipticum* (Carpenter, 1857). Question on generic placement removed (Bernard, 1983a). Extend distribution north to Laguna de Agiabampo, Sonora/Sinaloa, Mexico (García-Cubas & Reguero, 1987).
- 321 *Lepton lediforme* Olsson, 1961. Extend distribution north to San Felipe, Baja California, Mexico. Figured (Gemmell, Myers & Hertz, 1987).

Family MONTACUTIDAE
Subfamily MYSELLINAE Bernard, 1983a
Genus *Mysella* Angas, 1877

- 326 *?Mysella clementina* (Carpenter, 1857). Delete. *Nom. dub.* (Bernard, 1983a). Synonym of *Thracia curta* Conrad, 1837 [760] (Coan, 1990a).
- 328 *?Mysella dionaea* (Carpenter, 1857). Delete. *Nom. dub.* The single known valve is damaged and appears to be without teeth (Scott, 1987).
- *Mysella grippi* (Dall, 1912). Distribution: Oregon to San Diego, California; Gulf of California, Mexico. Depth: 12 to 60 m (Scott, 1987). Distribution confirmed to San Felipe, Baja California, Mexico. Hinge figured (Gemmell, Myers & Hertz, 1987).
- 330 *?Mysella umbonata* (Carpenter, 1857). Delete. *Nom. dub.* The four known valves are in poor condition (Scott, 1987).
- *Mysella* species. Synonym: *?Bornia obtusa* (Carpenter, 1857) [315] (Bernard, 1975). Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972).

Subgenus *Rochefortia* Velain, 1877

- 327 *Mysella (R.) compressa* (Dall, 1913). Add subgenus (Bernard, 1983a). Los Angeles County, California, is the northern limit of the distribution. Depth: 5 to 64 m (Scott, 1987). Depth: 100 m (F. & L. Poorman, 1988).

Subfamily OROBITELLINAE Bernard, 1983a
Genus *Orobitella* Dall, 1900

- 331 *Orobitella bakeri* (Dall, 1916). Synonyms: *Erycina chacei* Dall, 1916, nom. nud.; ?*Erycina santarosae* Dall, 1916 (Bernard, 1983a).

- 334 *Orobitella obliqua* (Harry, 1969). Delete here. Genus changed. See *Aligena*.

- 335 *Orobitella oblonga* (Carpenter, 1857). Extend distribution north to Guaymas, Sonora, Mexico (García-Cubas & Reguero, 1987).

- 338 *Orobitella trigonalis* (Carpenter, 1857). Delete here. Genus changed. See *Isorobitella*.

- 339 *Orobitella zorrata* (Olsson, 1961). Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth: 20 to 30 m (F. & L. Poorman, 1988).

Genus *Isorobitella* Keen, 1962

- 338 *Isorobitella trigonalis* (Carpenter, 1857). Synonym: *Aligena cerritensis* Arnold, 1903. Genus changed from *Orobitella* (Bernard, 1983a).

Genus *Pythinella* Dall, 1899

- 340 *Pythinella sublaevis* (Carpenter, 1857). Extend distribution north to the San Felipe area, Baja California, Mexico. Figured (Gemmell, Myers & Hertz, 1987). Depth: 35 m (F. & L. Poorman, 1988).

Subfamily THECODONTINAE Bernard, 1983a
Genus *Pristes* Carpenter, 1864

- *Pristes oblongus* Carpenter, 1864. As *Thecodonta (Pristes)*. Distribution: Monterey, California, to Baja California, Mexico (Abbott, 1974). Extend distribution into the Gulf of California at Cabo Tepoca, Sonora, Mexico. Intertidal zone (Skoglund, 1974). Extend distribution north to Bahía la Cholla, Sonora,

and across the Gulf of California to Bahía de los Angeles, Baja California, Mexico (Skoglund, 1991b).

Superfamily CYAMIACEA
Family SPORTELLIDAE
Genus *Basterotia* Hornes, 1859, ex Mayer MS
Subgenus *Basterotia*, s. s.

- 342 *Basterotia (B.) peninsularis* (Jordan, 1936). Extend distribution north to Bahía San Carlos area, Sonora, Mexico. Depth to 25 m (F. & L. Poorman, 1988).

Subgenus *Basterotella* Olsson & Harbison, 1953

- 343 *Basterotia (B.) hertleini* Durham, 1950. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a)

Family BERNARDINIDAE
Moved from Arcticacea (Coan, 1984).
Genus *Bernardina* Dall, 1910

- 264 *Bernardina margarita* (Carpenter, 1857). Lectotype figured. Distribution: Isla Guadalupe, west coast of Baja California; the Gulf of California to Guaymas, Sonora, and south to Bahía Banderas, Jalisco, Mexico. Depth: intertidal zone to 21 m (Coan, 1984b).

Genus *Halodakra* Olsson, 1961
Subgenus *Halodakra*, s. s.

- 265 *Halodakra (H.) subtrigona* (Carpenter, 1857). Lectotype figured. Distribution: Tomales Bay, Marin County, California, to and throughout the Gulf of California, Mexico, to Peru. Depth: intertidal zone to 24 m (Coan, 1984b). Include the Islas Galápagos, Ecuador, in distribution (Coan, 1989).

Superfamily CHAMACEA
Family CHAMIDAE
Genus *Chama* Linnaeus, 1758
Subgenus *Chama*, s. s.

- *Chama (C.) arcana* Bernard, 1976. Synonym: *Chama pellucida* Broderip, auctt., non Broderip, 1835. Length: 55 mm. Distribution: Yaquina Point, Oregon, to Bahía San Juanico, west

- coast of Baja California Sur, Mexico. Depth: intertidal to 50 m (Bernard, 1976). Extend distribution into the Gulf of California from Bahía de los Angeles, Baja California, to Bahía San Nicholas, Baja California Sur, Mexico (Skoglund, 1991c).
- 346 *Chama (C.) buddiana* C. B. Adams, 1852. Extend distribution north to Puerto Parker, Costa Rica. Low intertidal zone to 2 m (Bernard, 1976). Extend distribution north to La Union, El Salvador (Hernández, 1979). Lectotype figured. Synonyms: *Chama mexicana* Carpenter, *auctt., non* Carpenter, 1857 [349]; *C. frondosa fornicate* Carpenter, 1857. Distribution: San Felipe, Baja California, Mexico, to the Islas Galápagos, Ecuador (Hertz, Gemmell & Myers, 1982). Length: 119.9 mm (Wagner & Abbott, 1990).
- 346a *Chama (C.) corallina* Olsson, 1971. Holotype figured. Extend distribution north to Sonora, Mexico. Depth: 18 to 95 m (Bernard, 1976).
- 347 *Chama (C.) echinata* Broderip, 1835. Syntype figured. Synonym: *Chama delesserti* Chenu, 1846. Distribution: Isla Angel de la Guarda, Gulf of California, Mexico, south to Isla Huanape, northern Peru (Bernard, 1976). Synonym: *Chama frondosa mexicana* Carpenter, 1857 (Hertz, Gemmell & Myers, 1982). No synonyms listed (Moore, 1988). Length: 74 mm (Wagner & Abbott, 1990).
- 348 *Chama (C.) frondosa* Broderip, 1835. Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Holotype figured. Add synonym: *Chama pacifica* Carpenter, 1857, *ex* Gould MS, *nom. nud., non* Broderip, 1834. Intertidal zone to 25 m, on boulders (Bernard, 1976). Synonym: *Chama producta* Broderip, 1835. Holotype figured (Hertz, Gemmell & Myers, 1982). Extend distribution north to San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987). No synonyms listed (Moore, 1988). Length: 126.7 mm (Wagner & Abbott, 1990).
- *Chama (C.) garthi* Bernard, 1976. Synonym: *Chama spinosa* Broderip, *auctt., non* Broderip, 1835. Height: 23.7 mm. Distribution: Colombia & Ecuador. Depth: intertidal zone to 22 m (Bernard, 1976).
- 349 *Chama (C.) mexicana* Carpenter, 1857. Synonyms: *Chama producta* Broderip, 1835 (*nom. obl.*); *C. purpurascens* Tryon, 1872, *ex* Conrad MS; *C. compacta* Clessin, 1889. Extend distribution south to Guatemala. Depth to 80 m (Bernard, 1976). Delete. Becomes synonym of *C. buddiana* C. B. Adams, 1852 [346] (Hertz, Gemmell & Myers, 1982).
- *Chama (C.) pellucida* Broderip, 1835. Distribution: Oregon to Chile; Islas Galápagos (Dall, 1921). Synonym: *Chama chilensis* Philippi, 1887. Holotype of *C. chilensis* figured. Distribution: Paita, Piura Province, Peru, to Chile. Depth: intertidal zone to 30 m (Bernard, 1976).
- 350 *Chama (C.) sordida* Broderip, 1835. Syntype figured. Delete *Chama digueti* Rochebrune, 1895, as synonym (Bernard, 1976).
- 351 *Chama (C.) squamuligera* Pilsbry & Lowe, 1932. Add synonym: *Chama rubropicta* Bartsch & Rehder, 1939. Add L'ile Clipperton (France), to distribution. Depth: subtidal zone to 20 m (Bernard, 1976). Length: 28.8 mm (Draper, 1987). Extend distribution to Mexican mainland at Bahía San Carlos area, Sonora (F. & L. Poorman, 1988). No synonyms listed (Moore, 1988).
- *Chama (C.) tinctoria* Bernard, 1976. Height: 37 mm. Distribution: Islas Tres Marias, Mexico, to Panama. Depth: 15 to 92 m (Bernard, 1976).
- 352 *Chama (C.) venosa* Reeve, 1847. Holotype figured. Synonym: *Chama digueti* Rochebrune, 1895. Distribution: Isla Angel de la Guarda, Gulf of California, Mexico, to Paita, Piura Province, Peru. Depth: subtidal zone to 4 m (Bernard, 1976).
- Genus *Arcinella* Schumacher, 1817
- 353 *Arcinella californica* (Dall, 1903). Holotype figured. Extend distribution south to Colombia. Depth: 25 to 77 m (Bernard, 1976). Length: 44.3 mm (Draper, 1987). Extend distribution into the Gulf of California at Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).
- Genus *Pseudochama* Odhner, 1917
- 354 *Pseudochama clarionensis* Willett, 1938. Distribution: Isla Clarión, Mexico, south on the mainland coast to Isla del Tigre, Honduras; the Islas Galápagos, Ecuador. Depth: 27 to 55 m (Bernard, 1976).

- 355 *Pseudochama corrugata* (Broderip, 1835). Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Distribution: Isla Partida, Gulf of California, Mexico, to Bahía Sechura, Peru. Depth: intertidal to 5 m (Bernard, 1976).
- 356 *Pseudochama dalli* Bernard, 1976. Synonym: *Chama inermis* Dall, 1871, ex Carpenter MS, non Deshayes, 1863. Distribution: Islas Tres Marias, Mexico, to Panama. Only on wooden pilings, subtidal zone to 5 m (Bernard, 1976).
- *Pseudochama exogrya* (Conrad, 1837). Synonym: *Pseudochama granti* Strong, 1934. Syntype figured. Type locality of *P. granti*: Isla Clarión, Mexico. Distribution: southern British Columbia, Canada, to Isla San Benito, Mexico. Intertidal zone to 155 m (Bernard, 1976). Length: 79.7 mm (Draper, 1987). Type locality of *P. granti* is actually Catalina Island, California (Strong, 1934), which is north of the Panamic Province.
- 357 *Pseudochama janus* (Reeve, 1847). Holotype figured. Endemic to the Islas Galápagos, Ecuador. Depth: 10 to 25 m (Bernard, 1976).
- 358 *Pseudochama panamensis* (Reeve, 1847). Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Holotype figured. Distribution: Bahía San Luis Gonzaga, Baja California, Mexico, to Cabo San Francisco, Ecuador. Depth: midtide zone to 10 m (Bernard, 1976). Length: 46.7 mm (Draper, 1987).
- 359 *Pseudochama saavedrai* Hertlein & Strong, 1946. Holotype figured. Distribution: Puerto Peñasco, Sonora, Mexico, to Panama. Depth: low intertidal zone to 55 m (Bernard, 1976). Length: 71 mm (Wagner & Abbott, 1990).

Superfamily CARDIACEA

Family CARDIIDAE

Follows Keen (1980).

Subfamily TRACHYCARDIINAE

Genus *Trachycardium* Mörcz, 1853

Trachycardium as a subgenus of *Laevicardium* by Fischer-Piette (1977), and as a genus (Keen, 1980).

Subgenus *Trachycardium*, s. s.

- 360 *Trachycardium* (*T.*) *consors* (Sowerby, 1833). Depth: 30 to 100 m (F. & L. Poorman, 1988).

Length: 95.3 mm (Wagner & Abbott, 1990).

Subgenus *Dallocardia* Stewart, 1930

- 362 *Trachycardium* (*D.*) *senticosum* (Sowerby, 1833). As *Laevicardium* (*Trachycardium*) by Fischer-Piette (1977). Fischer-Piette's specimen was not this species. Reinstate as above (Keen, 1980). Depth: intertidal zone (Gemmell, Myers & Hertz, 1987). Length: 122.2 mm (Draper, 1987).

Subgenus *Mexicardia* Stewart, 1930

- 363 *Trachycardium* (*M.*) *panamense* (Sowerby, 1833). Height: 114 mm (Draper, 1987).
- 364 *Trachycardium* (*M.*) *procerum* (Sowerby, 1833). Add synonym: *Cardium subelongatus* Valenciennes, 1846. Include Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Distribution confirmed to Nayarit, Mexico (Reguero & García-Cubas, 1989). Height: 91 mm (Draper, 1987).

Subgenus *Phlogocardia* Stewart, 1930

- 365 *Trachycardium* (*P.*) *belcheri* (Broderip & Sowerby, 1829). As *Laevicardium* (*Trachycardium*) by Fischer-Piette (1977). As *Trachycardium* (*P.*) (Keen, 1980). Depth: 80 to 140 m (Bernard, 1983a). Extend distribution south to Isla Gorgona, Colombia (von Prahl, 1986). Depth: 35 to 60 m (F. & L. Poorman, 1988).

Genus *Acrosterigma* Dall, 1900

Raised from subgenus (Keen, 1980).

- 361 *Acrosterigma* *pristipleura* (Dall, 1901). As *Laevicardium* (*Trachycardium*) by Fischer-Piette (1977), and as *Acrosterigma* (Keen, 1980). Height: 118.9 mm (Wagner & Abbott, 1990).

Genus *Papyridea* Swainson, 1840

- 366 *Papyridea aspersa* (Sowerby, 1833). Depth: 40 to 60 m (F. & L. Poorman, 1988). Length: 62 mm (Draper, 1987).
- 368 *Papyridea mantaensis* Olsson, 1961. Length: 70.1 mm (Draper, 1987).

Subfamily FRAGINAE

Genus *Trigoniocardia* Stewart, 1930
Subgenus *Trigoniocardia*, s. s.

- 369 *Trigoniocardia* (*T.*) *granifera* (Broderip & Sowerby, 1829). As *Corculum* (*Trigoniocardia*) by Fischer-Piette (1977), and as *Trigoniocardia* (Keen, 1980). Length: 16 mm (Draper, 1987). Depth: 35 m (F. & L. Poorman, 1988).

Subgenus *Americardia* Stewart, 1930

As a genus (Abbott, 1974; McLean, 1978) and a subgenus (Keen, 1980).

- 370 *Trachycardium* (*A.*) *biangulata* (Broderip & Sowerby, 1829). As *Corculum* (*Trigoniocardia*) by Fischer-Piette (1977), and *Trachycardium* (*Americardia*) by Keen (1980). Synonym: *Cardium modestum* Conrad, 1855, non Philippi, 1845 (Bernard 1983a). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Length: 42.5 mm (Wagner & Abbott, 1990).

- 371 *Trachycardium* (*A.*) *guanacastensis* (Hertlein & Strong, 1947). As *Corculum* (*Trigoniocardia*) by Fischer-Piette (1977), and *Trachycardium* (*Americardia*) by Keen (1980).

Subgenus *Apocardia* Olsson, 1961

- 372 *Trachycardium* (*A.*) *obovalis* (Sowerby, 1833). Extend distribution south to Tumbes, Peru (Peña, 1971). Depth: 51 m (Cruz-P., 1977). Add synonyms: *Hemicardia affinis* Nelson, 1870, non *Cardium affine* Münster, 1835; *Cardium spiekeri* Hanna & Israelsky, 1925 (Bernard, 1983a). Height: 23 mm (Draper, 1987).

Subfamily PROTOCARDIINAE

Genus *Nemocardium* Meek, 1876

Subgenus *Lophocardium* Fischer, 1887
Changed from genus (Keen, 1980).

- 373 *Nemocardium* (*L.*) *annettae* (Dall, 1889). Depth: intertidal zone to 50 m (Bernard, 1983a).

- 374 *Nemocardium* (*L.*) *cumingii* (Broderip, 1833). Length: 47.4 mm (Wagner & Abbott, 1989).

Subgenus *Microcardium* Thiele, 1934

- 375 *Nemocardium* (*M.*) *panamense* (Dall, 1908).

Total ribs 47 to 58 (Olsson, 1961). Synonym: *Microcardium williami* Fischer-Piette, 1977 (Keen, 1980).

- 376 *Nemocardium* (*M.*) *pazianum* (Dall, 1916). Extend distribution south to Esmeraldas, Ecuador (Cruz-P., 1977). Length: 16.9 mm (Draper, 1987). Extend distribution into the Gulf of California to Bahía San Carlos, Sonora, Mexico. Depth: 20 to 100 m (F. & L. Poorman, 1988).

Subfamily LAEVICARDIINAE
Genus *Laevicardium* Swainson, 1840

- 377 *Laevicardium clarionense* (Hertlein & Strong, 1947). Length: 79.7 mm (Draper, 1987). Extend distribution across the Gulf of California to Bahía San Carlos, Sonora, Mexico. Depth: 35 to 60 m (F. & L. Poorman, 1988). Extend distribution south to Nayarit, Mexico (Reguero & García-Cubas, 1989).

- 378 *Laevicardium elatum* (Sowerby, 1833). Bernard (1983a) states distribution only from 16°N to 34°N. Height: 190 mm (Draper, 1987).

- 379 *Laevicardium elenense* (Sowerby, 1841). Add synonym: *Laevicardium pedernalense* Pilsbry & Olsson, 1941. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).

- *Laevicardium substriatum* (Conrad, 1837). Distribution: Ventura County, California, to the Gulf of California, Mexico (Abbott, 1974). Synonym: *Cardium cruentatum* Gould, 1855. Distribution: 24°N-34°N. Depth: intertidal zone to 40 m (Bernard, 1983a). Length: 28 mm (Draper, 1987).

Superfamily VENERACEA

Family VENERIDAE

Subfamily VENERINAE

Genus *Periglypta* Jukes-Browne, 1914

- 380 *Periglypta multicostata* (Sowerby, 1835). Synonym: *Cytherea caesarina* Dall, 1903 (Tardin Cassab, 1984). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Depth to 20 m (F. & L. Poorman, 1988). Length: 138.6 mm (Wagner & Abbott, 1990). Delete synonym. *Cytherea caesarina* Dall, 1903, is a valid Caribbean fossil species (Pauley, pers. comm., 1991).

Genus *Globivenus* Coen, 1934

- Synonym: *Ventricolaria* Keen, 1954 (Turgeon et al., 1988).
- *Globivenus fordii* (Yates, 1890). As genus *Circomphalus* (Abbott, 1974). As *Ventricolaria*. Distribution: 28°N-37°N (Bernard, 1983a). Length: 75.2 mm (Draper, 1987). Extend distribution into the Gulf of California at Isla Smith, Bahía de los Angeles, Baja California, Mexico (Skoglund, 1988). Lectotype figured (Scott, Hochberg & Roth, 1990).
- 381 *Globivenus isocardia* (Verrill, 1870). Extend distribution to Manta, Ecuador (Olsson, 1961). On the basis of a study of illustrations, *Ventricolaria isocardia* placed in the synonymy of Caribbean *V. rigida* (Dillwyn, 1817) (Fischer-Piette, 1975). Extend distribution to the Islas Galápagos, Ecuador (Shasky, 1989). Length: 113.2 mm (Wagner & Abbott, 1990).
- *Globivenus lavezzi* (Fischer-Piette, 1975). As *Venus*. Peru. Exact locality unknown (Fischer-Piette, 1975).
- 382 *Globivenus magdalena* (Dall, 1902). Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth: 110 m (F. & L. Poorman, 1988).
- Subfamily CIRCINAE
- Genus *Gouldia* C. B. Adams, 1847
- Subgenus *Gouldia*, s. s.
- 383 *Gouldia* (G.) *californica* Dall, 1917. Extend distribution south to Ecuador (Abbott, 1974). Bernard (1983) includes the Islas Galápagos, Ecuador, but gives the distribution as 8°N-26°N. Distribution to the Islas Galápagos, Ecuador, confirmed (Finet, 1985).
- Subfamily MERETRICINAE
- Genus *Tivela* Link 1807
- Subgenus *Tivela*, s. s.
- 384 *Tivela* (T.) *argentina* (Sowerby, 1835). Extend distribution south to Tumbes, Peru (Peña, 1971). Extend distribution to western side of the Gulf of California at San Felipe, Baja California, Mexico (Gemmell, Hertz & Myers, 1980). Distribution: 2°S-31°N (Bernard, 1983a). Length: 62.2 mm (Wagner & Abbott, 1990).
- 385 *Tivela* (T.) *byronensis* (Gray, 1838). Extend distribution south to Tumbes, Peru (Peña, 1971). Depth to 90 m (Cruz-P., 1977). Add synonyms: *Tivela elegans* Verrill, 1870; *Mactra calbucana* Philippi, 1893; *M. coquimbana* Philippi, 1893. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 61.3 mm (Draper, 1987).
- 386 *Tivela* (T.) *delesserti* (Sowerby, 1854). Add synonym: ?*Tivela marginata* "Carpenter" Berry, 1907 (Bernard, 1983a). Delete ?*Tivela marginata* "Carpenter" Berry, 1907, as a synonym (Coan, 1984b).
- Subgenus *Pachydesma* Conrad, 1854
- *Tivela* (P.) *stultorum* Mawe, 1854. Synonym: *Cytherea* (*Trigoella*) *crassatelloides* Conrad, 1837. Length: 187 mm. Distribution: Marin County, California, to Bahía Magdalena, Baja California Sur, Mexico. Depth: intertidal zone to 24 m (Hertlein & Grant, 1972). Synonyms: *C. solidissima* Philippi, 1851; *C.* (*Tivela*) *crassatelloides pauciradiata*, *C. c. multiradiata*, *C. c. alternata*, *C. c. eccentrica*, *C. c. serialis*, *C. c. interrupta*, *C. c. luteobrunnea*, *C. c. uniradiata*, *C. c. biradiata*, *C. c. triradiata*, *C. c. ochracea*, *C. c. purpureochocolata*, *C. c. biserialis*, *C. c. triserialis*, *C. c. aurora*, *C. c. duplicita*: all Stearns, 1899. Distribution: 25°N-37°N, intertidal zone to 5 m (Bernard, 1983a).
- Subgenus *Planitivela* Olsson, 1961
- 389 *Tivela* (P.) *hians* (Philippi, 1851). Delete. Becomes a synonym of *Tivela lessonii* (Deshayes, 1830), which has a distribution (12°S-30°S) outside of the Panamic Province (Bernard, 1983a).
- 390 *Tivela* (P.) *planulata* (Broderip & Sowerby, 1830). Extend distribution south to Máncora, Peru (Peña, 1971). Length: 64.9 mm (Draper, 1989).
- Genus *Transennella* Dall, 1884
- Correct date from 1883 (Keen & Coan, 1975).
- Subgenus *Transennella*, s. s.
- 391 *Transennella* (T.) *caryonautes* Berry, 1963. Depth: 20 to 150 m (Bernard, 1983a). Holotype figured (Hertz, 1984).
- 394 *Transennella* (T.) *modesta* (Sowerby, 1835).

Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Extend distribution across Gulf of California to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).

Subfamily PITARINAE
Genus *Pitar* Römer, 1857
Subgenus *Pitar*, s. s.

- 397 *Pitar (P.) berryi* Keen, 1971. Distribution: 21°N-23°N. Depth: 15 to 40 m (Bernard, 1983a). Length: 51 mm (Draper, 1987). Extend distribution north to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).
- 398 *Pitar (P.) consanguineus* (C. B. Adams, 1852). Distribution: 1°S-16°N, including the Islas Galápagos, Ecuador (Bernard, 1983a). Include Isla Gorgona, Colombia, in distribution (von Prahl, 1986).
- *Pitar (P.) newcombianus* (Gabb, 1865). Distribution: Monterey, California, to Punta Peñasco, Sonora, and south to Guatulco, Oaxaca; Isla Clarion, Mexico (Hertlein & Grant, 1972). Depth: 45 to 220 m (Bernard, 1983a).
- 401 *Pitar (P.) heleneae* Olsson, 1961. Extend distribution south to the Islas Galápagos, Ecuador (Finet, 1985). Include Isla Gorgona, Colombia, in distribution (von Prahl, 1986).
- 403 *Pitar (P.) perfragilis* Pilsbry & Lowe, 1932. Length: 11.4 mm. Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Extend distribution across the Gulf of California to Bahía San Carlos, Sonora, Mexico. Depth: 100 m (F. & L. Poorman, 1988). Extend distribution north to Isla Smith, Bahía de los Angeles, Baja California, Mexico. Depth: 14 to 183 m (Skoglund, 1988). Extend distribution south to Bahía Cocos, Costa Rica (Skoglund, 1990a).

Subgenus *Hyphantosoma* Dall, 1902

- 405 *Pitar (H.) hertleini* Olsson, 1961. Length: 48 mm (Draper, 1987). Extend distribution north to Nayarit, Mexico (Reguero & García-Cubas, 1989).
- 406 *Pitar (H.) pollicaris* (Carpenter, 1864).

Distribution: 26°N-29°N. Depth: intertidal zone to 15 m (Bernard, 1983a). Length: 86.4 mm (Draper, 1987). Depth: 20 m (F. & L. Poorman, 1988).

Subgenus *Hysteroconcha* Dall, 1902
Juvenile spine development (Skoglund, 1976).

- 408 *Pitar (H.) luponaria* (Lesson, 1830). Length: 96.5 mm (Wagner & Abbott, 1990).
- 409 *Pitar (H.) multispinosus* (Sowerby, 1851). Length: 51.4 mm (Draper, 1987).
- 410 *Pitar (H.) roseus* (Broderip & Sowerby, 1829). Extend distribution south to Peru (Abbott, 1974). Confirm distribution to Esmeraldas Province, Ecuador (Baldazzi, Di Cecco & Tiberi, 1986). Length: 53.4 mm (Draper, 1987). Correct synonym to read: *Cytherea lepida* Chenu, auctt., non Chenu, 1847 (Coan, pers. comm., 1990).

Subgenus *Lamelliconcha* Dall, 1902

- 411 *Pitar (L.) alternatus* (Broderip, 1835). Add synonym: *Dione pura* Deshayes, 1853 (Bernard, 1983a).
- 412 *Pitar (L.) callicomatus* (Dall, 1902). Extend distribution north to Nayarit, Mexico (Reguero & García-Cubas, 1989).
- 413 *Pitar (L.) concinnus* (Sowerby, 1835). Length: 45.8 mm (Draper, 1987).
- 414 *Pitar (L.) frizzelli* Hertlein & Strong, 1948. Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth: 35 to 100 m (F. & L. Poorman, 1988).
- 415 *Pitar (L.) hesperius* Berry, 1960. Holotype figured (Hertz, 1984). Length: 48.2 mm (Draper, 1987).
- 416 *Pitar (L.) payensis* Orbigny, 1845. Depth: 91 m (Cruz-P., 1977). Add synonym: *Pitar (L.) salanga* Pilsbry & Olsson, 1941 (Bernard, 1983a).
- 417 *Pitar (L.) tortuosus* (Broderip, 1835). Extend distribution south to Tumbes, Peru (Peña, 1971). Distribution: 3°S-28°N (Bernard, 1983a).
- 418 *Pitar (L.) unicolor* (Sowerby, 1835). Extend distribution north to the Gulf of California, Mexico (Abbott, 1974). Length: 58.4 mm (Draper, 1987). Distribution confirmed to Nayarit, Mexico (Reguero & García-Cubas, 1989).

- 419 *Pitar (L.) vinaceus* (Olsson, 1961). Length: 34.8 mm (Draper, 1987).

Subgenus *Pitarella* Palmer, 1927

- 420 *Pitar (P.) aequinoctialis* (Fischer-Piette, 1969). Extend distribution north to Esmeraldas, Ecuador. Depth: 47 to 90 m (Cruz-P., 1977).

- 421 *Pitar (P.) catharius* (Dall, 1902). Depth: 35 to 100 m (F. & L. Poorman, 1988).

- 422 *Pitar (P.) mexicanus* Hertlein & Strong, 1948. Extend distribution south to Ecuador (Abbott, 1974). Distribution: 9°N-31°N (Bernard, 1983a). Length: 59.2 mm (Draper, 1987).

Subgenus *Tinctora* Jukes-Brown, 1914

- 423 *Pitar (T.) vulneratus* (Broderip, 1835). Length: 51.9 mm (Draper, 1987).

Genus *Amiantis* Carpenter, 1864

- *Amiantis callosa* (Conrad, 1837). Synonyms: *Cytherea nobilis* Reeve, 1850; *Pitaria stalderi* Clark, 1915; *Antigona willisi* Trask, 1922. Distribution: 23°N-35°N. Depth: 1 to 20 m (Bernard, 1983a). Length: 120.7 mm (Draper, 1987).

Genus *Megapitaria* Grant & Gale, 1931

- 424 *Megapitaria aurantiaca* (Sowerby, 1831). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 129.7 mm (Wagner & Abbott, 1990).

- 425 *Megapitaria squalida* (Sowerby, 1835). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Depth to 35 m (F. & L. Poorman, 1988). Length: 122 mm (Wagner & Abbott, 1990).

Subfamily DOSINIINAE

Genus *Dosinia* Gray, 1835

Subgenus *Dosinia*, s. s.

- 426 *Dosinia (D.) dunkeri* (Philippi, 1844). Add synonym: *Cytherea (Artemis) angulosa* Philippi, 1847. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Depth to 100m (F. & L. Poorman, 1988).

- 427 *Dosinia (D.) ponderosa* (Schumacher, 1817). Add synonyms: *Artemis distans* Sowerby, 1851; *Dosinia grandis* Nelson, 1870; ?*D. (Dosinidia) titan* Maury, 1925. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 156.5 mm (Draper, 1987).

- 428 *Dosinia (D.) semiobliterata* Deshayes, 1853. Add synonym: *Artemis nanus* Reeve, 1850 (Bernard, 1983a). Length: 73.7 mm (Draper, 1987).

Subfamily CYCLININAE

Genus *Cyclinella* Dall, 1902

- 429 *Cyclinella jadisi* Olsson, 1961. Length: 50.9 mm (Draper, 1987). Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth: 35 m (F. & L. Poorman, 1988).

- 431 *Cyclinella saccata* (Gould, 1851). Length: 68.4 (Draper, 1987).

- 432 *Cyclinella singleyi* Dall, 1902. Extend distribution south to Tumbes, Peru (Peña, 1971). Synonym: *Cyclinella galera* Pilsbry & Olsson, 1941 (Bernard, 1983a).

- 433 *Cyclinella subquadrata* (Hanley, 1845). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).

Subfamily CLEMENTINIINAE

Genus *Clementia* Gray, 1842

Subgenus *Egesta* Conrad, 1845

- 435 *Clementia (E.) solida* Dall, 1902. Subgenus changed from *Clementia*, s. s. (Bernard, 1983a). Length: 71.9 mm (Wagner & Abbott, 1990).

Subgenus *Clementia* s. l.

- 436 *Clementia gracillima* Carpenter, 1857. Delete. *Nom. dub.* (Bernard, 1983a).

Genus *Compsomyax* Stewart, 1930

- 437 *Compsomyax subdiaphana* (Carpenter, 1864). Synonyms: *Saxidomus gibbosus* Gabb, 1869; *Callista subdiaphana pedroana* Arnold, 1903; *Clementia obliqua* Jukes-Brown, 1913 (Bernard, 1983a). Length: 84 mm (Wagner & Abbott, 1990).

Subfamily TAPETINAE

Genus *Eurhomalea* Crossmann, 1920

- *Eurhomalea decussata* (Deshayes, 1853). Distribution: 4°S-13°S. Intertidal zone (Bernard, 1983a).

Genus *Irus* Schmidt, 1818Subgenus *Paphonotia* Hertlein & Strong, 1948

- 438 *Irus (P.) ellipticus* (Sowerby, 1834). Add synonyms: *?Petricola discors* Sowerby, 1834; *Venerupis fimbriata* Sowerby, 1855. Correct author date on synonym *Petricola oblonga* to Sowerby, 1834, and of *P. solidula* to Sowerby, 1855 (Bernard, 1983a).

Subfamily CHIONINAE

Genus *Chione* Megerle, 1811Subgenus *Chione*, s. s.

- 440 *Chione (C.) californiensis* (Broderip, 1835). As a synonym of *Chione undatella* (Sowerby, 1835) [445] by Fischer-Piette & Vukadinovic (1977). Distribution: Goleta, California, to Peru (McLean, 1978). Reinstate as a valid species. Add synonyms: *Venus brevilineata* Conrad, 1849; *V. lamellifera* Conrad, 1849; *Chione (C.) californiensis peabodyi* Parker, 1949. Distribution restricted 17°N-34°N (Bernard, 1983a). Length: 76.4 mm (Draper, 1987).

- 441 *Chione (C.) compta* (Broderip, 1835). Synonym: *Venus neglecta* Gray, 1839, non Sowerby, 1839. Include the Islas Galápagos, Ecuador, in distribution. Depth: 20 to 30 m (Bernard, 1983a). Length: 45.7 mm (Draper, 1987).

- 442 *Chione (C.) guatulcoensis* Hertlein & Strong, 1948. Extend distribution north to La Paz, Baja California Sur, Mexico. Intertidal zone (Hertz & Hertz, 1984). Length: 14.8 mm (Draper, 1987).

- 443 *Chione (C.) subimbricata* (Sowerby, 1835). Synonym: *Chione tumens* (Verrill, 1870) [444] (Fischer-Piette & Vukadinovic, 1977). Delete *Chione tumens* as a synonym (Bernard, 1983a). Length: 42.4 mm (Draper, 1987).

- 444 *Chione (?C.) tumens* (Verrill, 1870). Delete. A synonym of *Chione subimbricata* (Sowerby, 1835) [443] (Fischer-Piette & Vukadinovic, 1977). Is a valid species. Depth: intertidal

zone to 10 m (Bernard, 1983a). Length: 44.5 mm (Draper, 1987).

- 445 *Chione (C.) undatella* (Sowerby, 1835). Synonym: *Chione californiensis* (Broderip, 1835) [440] (Fischer-Piette & Vukadinovic, 1977). Distribution: Goleta, California, to Peru (McLean, 1978). Anatomy figured (Jones, 1979). Delete *Chione californiensis* as a synonym. Add synonym: *Venus californiana* Conrad, 1837 (Bernard, 1983a). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Length: 61.4 mm (Wagner & Abbott, 1990).

Subgenus *Chionista* Keen, 1958

- 446 *Chione (C.) cortezi* (Carpenter, 1864, ex Sloat MS). Length: 88.5 mm (Draper, 1987).

- 447 *Chione (C.) fluctifraga* (Sowerby, 1853). Hinge figured (Fischer-Piette & Vukadinovic, 1977). Distribution: Mugu Lagoon, California, to the Gulf of California, Mexico (McLean, 1978). Synonym: *Venus sugillata* Reeve, 1863 (Bernard, 1983a). Extend distribution south to Laguna de Agiabampo, Sonora/Sinaloa, Mexico (García-Cubas & Reguero, 1987). Length: 86 mm (Wagner & Abbott, 1990).

Subgenus *Ilioichone* Olsson, 1961

- *Chione (I.) broggi* (Pilsbry & Olsson, 1943). Distribution: 4°S-33°S. Depth: intertidal zone to 5 m (Bernard, 1983a).

- 457 *Chione (I.) subrugosa* (Wood, 1828). Hinge figured. Synonyms: *Venus triradiata* Anton, 1839; *Anomalocardia broggi* Pilsbry & Olsson, 1943 (Fischer-Piette & Vukadinovic, 1977). Delete *Anomalocardia broggi* as a synonym. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).

Subgenus *Lirophora* Conrad, 1863

- 459 *Chione (L.) kelletii* (Hinds, 1845). Length: 75 mm (Wagner & Abbott, 1990).

- 460 *Chione (L.) mariae* (Orbigny, 1846). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).

- 461 *Chione (L.) oblitterata* Dall, 1902. Distribution: 9°N-19°N (Bernard, 1983a). Extend distribution north to Yavaros, Sonora, Mexico

(García-Cubas & Reguero, 1987).

Genus *Chionopsis* Olsson, 1932

Raised to genus (Fischer-Piette & Vukadinovic, 1977).

- 448 *Chionopsis amathusia* (Philippi, 1844). Add synonym: *Chione variabilis* Nelson, 1870. Delete ?*Venus darwinii* Dunker, in Römer, 1857, as a synonym (Bernard, 1983a). Length: 65.4 mm (Draper, 1987).
- 449 *Chionopsis crenifera* (Sowerby, 1835). As a synonym of *Nioche subrostrata* Lamark, 1818 (Fischer-Piette & Vukadinovic, 1977). Is a valid species. Synonym: *Venus eximia* Philippi, 1847, non Forbes, 1846 (Bernard, 1983a).
- 450 *Chionopsis gnidia* (Broderip & Sowerby, 1829). Synonyms: *Venus amathusia* Philippi, 1844 [448]; *Venus darwinii* Römer, 1858, ex Dunker MS; *Chione jamaniana* Pilsbry & Olsson, 1941 [451] (Fischer-Piette & Vukadinovic, 1977). Delete as synonyms: *Venus amathusia* and *Chione jamaniana* (Bernard, 1983a). Length: 116.7 mm (Wagner & Abbott, 1990).
- 451 *Chionopsis jamaniana* (Pilsbry & Olsson, 1941). Distribution: 0°-5°S (Bernard, 1983a).
- 452 *Chionopsis montezuma* (Pilsbry & Lowe, 1932).
- 453 *Chionopsis olsoni* (Fischer-Piette, 1969). Delete. Becomes a synonym of *Chionopsis purpurissata* (Dall, 1902) [456] (Fischer-Piette & Vukadinovic, 1977).
- 454 *Chionopsis ornatissima* (Broderip, 1835). Depth: 51 m (Cruz-P., 1977).
- 455 *Chionopsis pulicaria* (Broderip, 1835). Synonym: *Chione montezuma* Pilsbry & Lowe, 1932 [452] (Fischer-Piette & Vukadinovic, 1977). Delete *Chione montezuma* as a synonym. Add synonym: *Venus pinacatensis* Carpenter, 1864, ex Sloat MS (Bernard, 1983a). Length: 57.1 mm (Wagner & Abbott, 1990).
- 456 *Chionopsis purpurissata* (Dall, 1902). As *Chionopsis (Puberella) pubera* (Bory de St. Vincent, 1827) with synonym *Chionopsis olsoni* Fischer-Piette, 1968 [453] (Fischer-Piette & Vukadinovic, 1977). As *Chione purpurissata* (Bernard, 1983a). Depth: 80 m (F. & L. Poorman, 1988). Extend distribution south to Bahía Cocos, Costa Rica (Skoglund, 1990a). Extend distribution south to Guayas, Ecuador (Skoglund, 1990b).

Genus *Timoclea* Brown, 1827

Raised from subgenus (Fischer-Piette & Vukadinovic, 1977)

- *Timoclea picta* (Willett, 1944). Distribution: 17°N-29°N, intertidal zone to 50 m (Bernard, 1983a). Delete. Becomes a synonym of *Chione (T.) squamosa* (Carpenter, 1857) [463] (Gemmell, Myers & Hertz, 1987).
- 463 *Timoclea squamosa* (Carpenter, 1857). *T. squamosa* regarded as a synonym of *T. troglodytes* Mörch, 1861, by Fischer-Piette & Vukadinovic (1977). A valid species. Depth: 10 to 50 m (Bernard, 1983a). Synonym: *Chione picta* Willett, 1944. Distribution confirmed to San Felipe, Baja California, Mexico, intertidal zone. Length: 15mm (Gemmell, Myers & Hertz, 1987).

Genus *Mercenaria* Schumacher, 1817

- 464 *Mercenaria apodema* (Dall, 1902). Delete. Probably a ballast shell referable to an Atlantic species (Bernard, 1983a).

Genus *Protothaca* Dall, 1902

Subgenus *Protothaca*, s. s.

- *Protothaca (P.) staminea* (Conrad, 1837). Synonyms: *Venerupis petitii* Deshayes, 1839; *Tapes ruderata* Deshayes, 1853; *Tapes staminea orbella* Carpenter, 1864; *Protothaca staminea spatiosa* Dall, 1916. Distribution: Aleutian Islands to Cabo San Lucas, Baja California Sur, Mexico. Depth: shore to 46 m (Hertlein & Grant, 1972). Synonyms: *Venus pectunculoides* Valenciennes, 1846; *Tapes diversa* Sowerby, 1855; *Venus dispar* Carpenter, 1857; *V. ampliata* Carpenter, 1857; *V. mundulus* Reeve, 1863; *Leukoma conradi* Römer, 1867; *Paphia (Protothaca) staminea sulculosa*, Dall, 1902; *Protothaca grewingkii* Dall, 1904. Distribution: 23°N-60°N, intertidal zone to 10 m (Bernard, 1983a).

Subgenus *Antinoche* Olsson, 1961

- 465 *Protothaca (A.) beili* (Olsson, 1961). As *Nioche* by Fischer-Piette & Vukadinovic (1977), and *Protothaca* by Bernard (1983a). Extend

distribution north to the Gulf of Fonseca, El Salvador (Hernández, 1979).

Subgenus *Colonche* Olsson, 1961

- 466 *Protothaca (C.) ecuadoriana* (Olsson, 1961). As *Nioche* by Fischer-Piette & Vukadinovic (1977), and *Protothaca* by Bernard (1983a).

Subgenus *Leukoma* Römer, 1857

- 467 *Protothaca (L.) asperrima* (Sowerby, 1835). Placed in genus *Nioche* as a synonym of *Nioche cardilla* Lamarck, 1818 (Fischer-Piette & Vukadinovic, 1977). A valid species. Delete *Tapes tumida* Sowerby, 1853, as a synonym. Include the Islas Galápagos, Ecuador in distribution (Bernard, 1983a). Length: 63.9 mm (Draper, 1987). Correct date on synonym *Venus intersecta* to Sowerby, 1853 (Coan, pers. comm., 1990).

- 468 *Protothaca (L.) macgintyi* (Olsson, 1961). As *Nioche* by Fischer-Piette & Vukadinovic (1977). As *Protothaca*. Change spelling from *mcgintyi* (Bernard, 1983a).

- 469 *Protothaca (L.) metodon* (Pilsbry & Lowe, 1932). Placed in genus *Nioche* by Fischer-Piette & Vukadinovic (1977), and *Protothaca* by Bernard (1983a). Length: 46.4 mm (Draper, 1987).

- 470 *Protothaca (L.) subaequilateralis* (Fischer-Piette, 1969). Placed in *Nioche* by Fischer-Piette & Vukadinovic (1977), and *Protothaca* by Bernard (1983a).

- 471 *Protothaca (L.) zorritensis* (Olsson, 1961). Hinge figured. Placed in genus *Nioche* by Fischer-Piette & Vukadinovic (1977). As *Protothaca*. Include the Islas Galápagos in distribution (Bernard, 1983a).

Subgenus *Notochione* Hertlein & Strong, 1948

- 472 *Protothaca (N.) columbiensis* (Sowerby, 1835). Extend distribution north to Laguna de Topolobampo, Sinaloa, Mexico (García-Cubas & Reguero, 1987). Length: 59.6 mm (Draper, 1987).

Subgenus *Tropithaca* Olsson, 1961

- 473 *Protothaca (T.) grata* (Say, 1831). Hinge

figured (Fischer-Piette & Vukadinovic, 1977). Synonym: *Venus neglecta* Philippi, 1844, non Sowerby, 1839. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 49.5 mm (Draper, 1987).

Family PETRICOLIDAE
Genus *Petricola* Lamarck, 1801
Subgenus *Petricola*, s. s.

- 476 *Petricola (P.) exarata* (Carpenter, 1857). Extend distribution south to Mancora, Peru (Peña, 1971). Add synonyms: *Petricola anachoreta* Folin, 1867; *Cypricardia noemi* Folin, 1867 (Bernard, 1983a).
- 477 *Petricola (P.) lucasana* Hertlein & Strong, 1948. Extend distribution south to Nicaragua (Montoya, López & López, 1987). Length: 50.3 mm (Draper, 1987).

Subgenus *Petricolaria* Stoliczka, 1870

- *Petricola (P.) amygdalina* Sowerby, 1834. Distribution: 3°S-2°N, including the Islas Galápagos, Ecuador. Depth: intertidal zone to 10 m (Bernard, 1983a).
- 478 *Petricola (P.) cognata* C.B. Adams, 1852. Extend distribution north to Laguna de Topolobampo, Sinaloa, Mexico (García-Cubas & Reguero, 1987).
- 480 *Petricola (P.) gracilis* Deshayes, 1853. Synonym: *Petricola gracilis parallela* Pilsbry & Lowe, 1932 (Bernard, 1983a). Extend distribution south to Los Santos Province, Panama (García & Pelesca, 1984). Length: 74.1 mm (Draper, 1987). Extend distribution south to Guayas, Ecuador (Skoglund, 1990b).

Genus *Rupellaria* Fleuriau de Bellevue, 1802
Raised to genus (Abbott, 1974) (Woodring, 1982).

- *Rupellaria carditoides* (Conrad, 1837). Length: 40 mm. Depth: intertidal zone to offshore. Distribution: Vancouver Island, British Columbia, Canada, to Bahía Magdalena, Baja California Sur, Mexico (McLean, 1978). Delete. Distribution (28°N-57°N) is north of the Panamic Province (Bernard, 1983a).
- 481 *Rupellaria denticulata* (Sowerby, 1834). Length: 34.2 mm (Draper, 1987).

- 482 *Rupellaria olsoni* Bernard, 1983. Synonym: *Petricola (P.) peruviana* Olsson, 1961, *non Venerupis peruviana* Jay, 1839 (Bernard, 1983a).
- 483 *Rupellaria typica* (Jonas, 1844). Synonyms: *Petricola robusta* Sowerby, 1834; *P. rioensis* Maury, 1917. Distribution: both sides of Central America (Woodring, 1982). Add synonym: *Petricola venusta* Folin, 1867 (Bernard, 1983a). Length: 41.5 mm (Draper, 1987).

Superfamily MACTRACEA
Family MACTRIDAE
Genus *Mactra* Linnaeus, 1767
Subgenus *Mactra*, s. s.

- 486 *Mactra (M.) williamisi* Berry, 1960. Distribution: 2°S-14°N (Bernard, 1983a). Holotype figured (Hertz, 1984).

Subgenus *Mactroderma* Dall, 1894

- 488 *Mactra (M.) velata* Philippi, 1849. Distribution: 1°S-19°N, including the Islas Galápagos, Ecuador (Bernard, 1983a). Length: 116 mm (Draper, 1987).

Subgenus *Mactrotoma* Dall, 1894

- 489 *Mactra (M.) dolabriformis* (Conrad, 1867). Delete here. Subgenus changed. See *Mactra (Simomactra)*.
- 490 *Mactra (M.) nasuta* Gould, 1851. Distribution restricted to 6°N-34°N (Bernard, 1983a).

Subgenus *Micromactra* Dall, 1894

- 491 *Mactra (M.) angusta* Reeve, 1854. Extend distribution north to San Blas, Nayarit, Mexico. Length: 48.1 mm (Draper, 1987).
- 492 *Mactra (M.) californica* Conrad, 1837. Extend distribution south to Tumbes, Peru (Peña, 1971). Add synonym: *Mactra ovalina* Reeve, 1854 (Bernard, 1983a).
- 493 *Mactra (M.) fonsecana* Hertlein & Strong, 1950. Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985).
- 495 *Mactra (M.) vanattae* Pilsbry & Lowe, 1932. Extend distribution south to Paita, Piura Province, Peru (Peña, 1971).

Subgenus *Simomactra* Dall, 1894

- 489 *Mactra (S.) dolabriformis* (Conrad, 1867). "The type species of *Simomactra* Dall, 1894; doubtfully to be distinguished from *Mactrotoma* by having a smaller pallial sinus" (Keen & Coan, 1975). Length: 96.7 mm (Draper, 1987).
- *Mactra (S.) hoffstetteri* Cauquoin, 1969. Distribution: 1°N (Bernard, 1983a).

Genus *Harvella* Gray, 1853

- 498 *Harvella elegans* (Sowerby, 1825). Add synonyms: *Mactra estrellana* Olsson, 1922; *Mactra sanctiblasii* Maury, 1925. Subspecies: *Harvella elegans tucilla* Olsson, 1932 (Woodring, 1982). Length: 76 mm (Draper, 1987).

Genus *Mactrellona* Marks, 1951

- 499 *Mactrellona carinata* (Lamarck, 1818). Extend range south to Tumbes, Peru (as *M. alata*) (Peña, 1971). Synonym: *Mactrellona alata* Spengler, auct., non Spengler, 1802 (Bernard, 1983a).
- 501 *Mactrellona exoleta* (Gray, 1837). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 129.6 mm (Draper, 1987).

Genus *Mulinia* Gray, 1837

- 503 *Mulinia coloradoensis* Dall, 1894. Delete *Mulinia modesta* Dall, 1894, as synonym (Bernard, 1983a). Length: 63.4 mm (Draper, 1987).
- 504 *Mulinia pallida* (Broderip & Sowerby, 1829). Add synonyms: *Mulinia densata* Conrad, 1856; *Mactra carinulata* Reeve, 1854; *Mulinia modesta* Dall, 1894; *M. camina* Pilsbry & Olsson, 1941 (Bernard, 1983a).

Genus *Raeta* Gray, 1853

- 505 *Raeta undulata* (Gould, 1851). Extend distribution south to near Caleta Chipana, Chile (21°S) (Tomicic-K., 1978). Synonym: *Raeta gibbosa* Gabb, 1869 (Bernard, 1983a).

Genus *Rangia* DesMoulins, 1832
 Subgenus *Rangianella* Conrad, 1863

- 506 *Rangia (R.) mendica* (Gould, 1851). Add synonym: *Gnathodon lecontei* Conrad, 1853 (Bernard, 1983a). Length: 36.4 mm (Draper, 1987).

Genus *Spisula* Gray, 1837

- *Spisula planulata* (Conrad, 1837). As subgenus *Mactromeris*. Distribution: Monterey Bay, California, to Cabo San Lucas, Baja California Sur, Mexico. Depth: intertidal zone to 91 m (Hertlein & Grant, 1972).

Superfamily TELLINACEA

In line 1 of the definition of the Tellinacea, delete "never with a chondrophore" and substitute, "never with any inverted V-shaped cardinal teeth" (Keen & Coan, 1975).

Family TELLINIDAE

Genus *Tellina* Linnaeus, 1758
 Subgenus *Angulus* Megerle, 1811

- 508 *Tellina (A.) amianta* Dall, 1900. Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Holotype figured. Extend distribution to San Felipe, Baja California, Mexico. Shell and hinge figured (Hertz, Myers & Gemmell, 1984).

- 509 *Tellina (A.) carpenteri* Dall, 1900. Lectotype figured. Valve interiors figured. Add synonym: *Angulus variegatus* Carpenter, 1864, *non Tellina variegata* Gmelin, 1791. Depth: intertidal zone to 500 m (Coan, 1971).

- 512 *Tellina (A.) coani* Keen, 1971. Holotype figured. Interior of valves and hinge figured. Extend distribution to Playa Alicia, near San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1983). Depth: 30 m (F. & L. Poorman, 1988).

- 513 *Tellina (A.) felix* Hanley, 1844. Extend distribution north to Laguna de Guaymas, Sonora (García-Cubas & Reguero, 1987). Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth to 90 m (F. & L. Poorman, 1988).

- 515 *Tellina (A.) hiberna* Hanley, 1844. Lectotype figured. Intertidal zone near San Felipe, Baja California, Mexico (Hertz, Myers & Gemmell,

1984).

- 517 *Tellina (A.) meropsis* Dall, 1900. Lectotype figured. Valve interiors figured. Add synonym: *Angulus gouldii* Carpenter, 1864, *ex* Hanley MS, *non Tellina gouldii* Hanley, 1846. Distribution: Pacific Grove, California; the west coast of Baja California; the Gulf of California, Mexico, and south to Santa Elena, Ecuador. Depth: intertidal zone to 48 m (Coan, 1971). Length: 15.1 mm (Draper, 1987).
- 518 *Tellina (A.) recurvata* Hertlein & Strong, 1949. Length: 27 mm (Draper, 1987).
- 522 *Tellina (A.) tumbezensis* (Olsson, 1961). Extend distribution north to Panama (Avilés-E., 1981).

Subgenus *Elliptotellina* Cossmann, 1888

- 523 *Tellina (E.) pacifica* Dall, 1900. Extend distribution south to the Islas Galápagos, Ecuador (Finet, 1985). Length: 18 mm (Draper, 1987). Extend distribution across the Gulf of California to Bahía San Carlos, Sonora, Mexico. Depth: 20 to 35 m (F. & L. Poorman, 1988).

Subgenus *Elpidollina* Olsson, 1961

- 524 *Tellina (E.) decumbens* Carpenter, 1865. Add synonym: *Angulus amplexans* Carpenter, 1864, *nom. nud.* (Bernard, 1983a).

Subgenus *Eurytellina* Fischer, 1887

- 525 *Tellina (E.) eburnea* Hanley, 1844. Add synonym: *Tellina (E.) eburnea askoyana* Hertlein & Strong, 1955 [526]. Distribution: 5°S-14°N (Bernard, 1983a). Extend distribution north to Nayarit, Mexico (Reguero & García-Cubas, 1989).

- 526 *Tellina (E.) eburnea askoyana* Hertlein & Strong, 1955. Delete. Becomes synonym of *Tellina (E.) eburnea* [525] (Bernard, 1983a).

- 527 *Tellina (E.) ecuadoriana* Pilsbry & Olsson, 1941. Extend distribution south to Tumbes, Peru (Peña, 1971). Extend distribution north to the Gulf of Fonseca, El Salvador (Hernández, 1979).

- 528 *Tellina (E.) hertleini* (Olsson, 1961). Extend distribution south to Tumbes, Peru (Peña, 1971). Distribution: 3°S-13°N (Bernard, 1983a).

- *Tellina (E.) laplata* Pilsbry & Olsson, 1941. Length: 60 mm. Distribution: Paita and Bayovar, Peru (Olsson, 1961).
- 531 *Tellina (E.) mantaensis* Pilsbry & Olsson, 1943. Extend distribution north to Guaymas, Sonora, Mexico. Length: 26.2 mm (Draper, 1987).
- 532 *Tellina (E.) prora* Hanley, 1844. Extend distribution north to San Felipe, Baja California, Mexico. Valve interiors and hinge figured (Gemmell, Myers & Hertz, 1987).
- 535 *Tellina (E.) simulans* C.B. Adams, 1852. Valve interiors figured (Gemmell, Myers & Hertz, 1987). Length: 52.3 mm (Draper, 1987).

Subgenus *Hertellina* Olsson, 1961

- 536 *Tellina (H.) nicoyana* Hertlein & Strong, 1949. Distribution: 4°S-10°N (Bernard, 1983a).

Subgenus *Laciolina* Iredale, 1937

- 537 *Tellina (L.) ochracea* Carpenter, 1864. Extend distribution south to Bahía Cocos, Costa Rica (Skoglund, 1990a).

Subgenus *Lyratellina* Olsson, 1961

- 538 *Tellina (L.) lyra* Hanley, 1844. Extend distribution to Bahía San Carlos, Sonora, Mexico. Depth to 35 mm (F. & L. Poorman, 1988).

Subgenus *Merisca* Dall, 1900

- 540 *Tellina (M.) brevirostris* Deshayes, 1855. Lectotype figured. Delete *Merisca margarita* Olsson, 1961, as synonym. Distribution: south of Puertecitos, Baja California, throughout the Gulf of California, Mexico, to the Islas Galápagos, Ecuador (Myers, Gemmell & Hertz, 1983). Length: 25.2 mm (Draper, 1987).

- 541 *Tellina (M.) reclusa* Dall, 1900. Extend distribution into the Gulf of California at San Felipe, Baja California, Mexico. Lectotype figured. Synonym: *Merisca margarita* Olsson, 1961 (Myers, Gemmell & Hertz, 1983).

- 542 *Tellina (M.) cristallina* Spengler, 1798. Synonyms: *Tellina errati* Pilsbry & Johnson, 1917; *Merisca rhynchoscuta* Olsson, 1961. Distribution: Panama to Ecuador; Western Atlantic (Woodring, 1982). Exterior and

details of hinge figured (as *T. rhynchoscuta*) (Gemmell, Myers & Hertz, 1987). Length: 27 mm (Draper, 1987).

- 543 *Tellina (M.) ulloana* Hertlein, 1968. Hinge dentition figured. Extend distribution north to the San Felipe area, Baja California, Mexico (Gemmell, Hertz & Myers, 1980).

Subgenus *Peronidia* Dall, 1900

- *Tellina (P.) bodegensis* Hinds, 1845. Synonym: *Tellina (Peronidia) santarosae* Dall, 1900. Lectotype figured. Distribution: British Columbia, Canada, to Bahía Magdalena, Baja California Sur, Mexico. Gulf of California records probably in error. Depth: intertidal zone to 96 m (Coan, 1971). Synonym: ?*T. callamensis* Reagan, 1908 (Bernard, 1983a). Length: 62.4 mm (Draper, 1987).

Subgenus *Phyl洛ella* Hertlein & Strong, 1949

- 544 *Tellina (P.) insculpta* Hanley, 1844. Extend distribution north to Nayarit, Mexico (Reguero & García-Cubas, 1989).

Subgenus *Phyllodina* Dall, 1900

- 545 *Tellina (P.) fluctigera* Dall, 1908. Distribution: 4°S-8°N. Depth: 45 to 333 m (Bernard, 1983a).

- 546 *Tellina (P.) pristiphora* Dall, 1900. Distribution: 10°N-28°N (Bernard, 1983a).

Subgenus *Scissula* Dall, 1900

- 550 *Tellina (S.) virgo* Hanley, 1844. Valve interiors and details of hinge figured. Extend distribution to San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987).

Subgenus *Tellinella* Mörch, 1853, ex Gray MS

- 551 *Tellina (T.) cumingii* Hanley, 1844. Synonym: *Tellina argis* Olsson, 1971 [551a]. Distribution: 9°N-25°N (Bernard, 1983a). Include Isla Gorgona, Colombia, in distribution (von Prahl, 1986). Length: 65.5 mm (Draper, 1987).

- 551a *Tellina (T.) cumingii argis* Olsson, 1971. Known from a single valve taken at Isla Gorgona, Colombia, 91 to 101 m (Olsson,

1971). Delete. Becomes a synonym of *Tellina (T.) cumingii* Hanley, 1844 [551] (Bernard, 1983a).

- 552 *Tellina (T.) zacae* Hertlein & Strong, 1949. Distribution: 27°N-29°N (Bernard, 1983a).

Subgenus *Tellinidella* Hertlein & Strong, 1949

- 554 *Tellina (T.) princeps* Hanley, 1844. Correct Keen (1971) number from 544 (Keen & Coan, 1975). Length: 80.5 mm (Draper, 1987).

- 555 *Tellina (T.) purpurea* Broderip & Sowerby, 1829. Extend distribution south to Tumbes, Peru (Peña, 1971). Length: 65.9 mm (Draper, 1987).

Genus *Leporimetis* Iredale, 1930

Synonym: *Florimetis* Olsson & Harbison, 1953 (Coan, 1971).

- 556 *Leporimetis asthenodon* (Pilsbry & Olsson, 1932). Extend distribution south to Tumbes, Peru (Peña, 1971).

- 557 *Leporimetis cognata* (Pilsbry & Vanatta, 1902). Depth: 35 to 100 m (F. & L. Poorman, 1988).

- 558 *Leporimetis dombei* (Hanley, 1844). Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985).

- *Leporimetis obesa* (Deshayes, 1855). Lectotype figured. Interior of valves figured. Synonyms: *Tellina turgida* Deshayes, 1855; *T. alta* Conrad, 1837, non Conrad, 1833; *Scrobicularia biangulata* Carpenter, 1856. Distribution: Point Conception, California, to Bahía Magdalena, Baja California Sur, Mexico. Depth: intertidal zone to 46 m (Coan, 1971). Length: 112.3 mm (Wagner & Abbott, 1990).

Genus *Cymatoica* Dall, 1890

Raised from subgenus (Abbott, 1974).

- 559 *Cymatoica undulata* (Hanley, 1844). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Depth: 35 to 100 m (F. & L. Poorman, 1988).

Genus *Macoma* Leach, 1819

Subgenus *Psammacoma* Dall, 1900

- 561 *Macoma (?P.) carlottensis* (Whiteaves, 1880). Lectotype figured. Interior of valves figured. Distribution: Aleutian Islands, Alaska, to Islas Coronados, Baja California, and Isla Anemas, Gulf of California, Mexico. Depth: 5 to 1547 m. Other records from Baja California Sur are in error (Coan, 1971).

- 562 *Macoma (P.) elytrum* Keen, 1958. Hinge dentition figured (Gemmell, Hertz & Myers, 1980). Lectotype of synonym *Tellina elongata* Hanley, 1844, figured. Interior of right valve of lectotype figured (Myers, Hertz & Gemmell, 1983a and 1983b). Length: 87.1 mm (Wagner & Abbott, 1990).

- 563 *Macoma (P.) grandis* (Hanley, 1844). Add Islas Galápagos, Ecuador, to distribution (Bernard, 1983a). Length: 85 mm (Draper, 1987).

- 564 *Macoma (P.) hesperus* Dall, 1908. Delete. Known only from the holotype, which is from the Caribbean (Bernard, 1983a).

- 565 *Macoma (P.) lamproleuca* (Pilsbry & Lowe, 1932). Length: 101.8 mm (Wagner & Abbott, 1990).

- *Macoma (P.) panamensis* Dall, 1900. Valid species. Holotype figured. Type locality Bahía de Panama. Keen (1971) fig. 566 is this species (Gemmell, Myers & Hertz, 1984).

- 567 *Macoma (P.) panamensis spectri* Hertlein & Strong, 1949. Synonym: *Macoma siliqua spectri* Hertlein & Strong, 1949. Holotype figured. Holotype dentition figured (Gemmell, Myers & Hertz, 1984). Depth: 35 to 100 m (F. & L. Poorman, 1988).

- 566 *Macoma (P.) siliqua* (C.B. Adams, 1852). Extend distribution south to Esmeraldas, Ecuador. Depth: 90 m (Cruz-P., 1977). Synonym: *Macoma (P.) siliqua spectri* Hertlein & Strong, 1949. Distribution: 9°N-31°N. Depth: 20 to 150 m (Bernard, 1983a). Holotype shell and hinge figured. Holotype of synonym *Thracia carneae* Mörcz, 1860, figured. Delete synonyms *Macoma panamensis* Dall, 1900, and *M. siliqua spectri* Hertlein & Strong, 1949. Keen (1971) fig. 566, lower, is *Macoma panamensis* Dall, 1900. Distribution: San Felipe, Baja California, Mexico, to Panama (Gemmell, Myers & Hertz, 1984). Length: 35.2 mm (Draper, 1987).

Subgenus *Rexithaerus*
Tryon, 1869, ex Conrad MS

- 568 *Macoma (R.) indentata* Carpenter, 1864. Lectotype figured. Valve interiors figured. Synonyms: *Macoma (R.) indentata tenuirostris* Dall, 1900; *M. (R.) rickettsi* Steinbeck & Ricketts, 1941, ex Rehder MS, *nom. nud.* Distribution: Trinidad, California, to and through the Gulf of California as far south as Isla Cerralvo, Baja California Sur; Guaymas, Sonora, Mexico. Depth: intertidal zone to 91 m (Coan, 1971). Length: 93.2 mm (Wagner & Abbott, 1990).
- *Macoma (R.) secta* (Conrad, 1837). Synonyms: *Tellina ligamentina* Deshayes, 1843; *Macoma secta edulis* Carpenter, 1860, ex Nuttall MS. Holotype and valve interiors figured. Length: 120 mm. Distribution: Vancouver Island, British Columbia, Canada, to Bahía Magdalena, Baja California Sur, Mexico. Depth: intertidal zone to 46 m. Specimens in collections from Acapulco and Oaxaca probably represent labeling errors (Coan, 1971). Extend distribution into the Gulf of California at Bahía San Carlos, Sonora, Mexico. Depth: 80 m (F. & L. Poorman, 1988).

Genus *Psammotreta* Dall, 1900
Subgenus *Psammotreta*, s. s.

- 569 *Psammotreta (P.) aurora* (Hanley, 1844). Add synonym: *Tellina concinna* Philippi, 1844. Extend distribution to the Islas Galápagos, Ecuador (Bernard, 1983a). Length: 40 mm (Draper, 1987).
- 570 *Psammotreta (P.) mazatlanica* (Deshayes, 1855). Length: 42.5 mm (Draper, 1987). Extend distribution north to Isla Smith, Bahía de los Angeles, Baja California, Mexico. Depth: 183 m (Skoglund, 1988).
- 572 *Psammotreta (P.) viridotincta* (Carpenter, 1856). Synonym: *Tellina casta* Hanley, 1844 (Bernard, 1983a). Length: 79.3 mm (Wagner & Abbott, 1990).

Subgenus *Ardeamya* Olsson, 1961

- 573 *Psammotreta (A.) columbiensis* (Hanley, 1844). Extend distribution south to Tumbes, Peru (Peña, 1971).

Genus *Strigilla* Turton, 1822
Subgenus *Strigillia*, s. s.

- 575 *Strigilla (S.) cicercula* (Philippi, 1846). Synonym: *S. interrupta* Mörch, 1860 [579]. Depth: 90 m (Cruz-P., 1977). Delete *S. interrupta* as a synonym (Bernard, 1983a). Length: 11.7 mm (Draper, 1987).
- 576 *Strigilla (S.) dichotoma* (Philippi, 1846). Depth: 51 m (Cruz-P., 1977). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).
- 577 *Strigilla (S.) disjuncta* (Carpenter, 1856). Extend distribution north to the Gulf of Fonseca, El Salvador (Hernández, 1979).

Subgenus *Pisostrigilla* Olsson, 1961

- 579 *Strigilla (P.) interrupta* Mörch, 1860. Regarded as a synonym of *Strigilla cicercula* (Philippi, 1846) [575] (Cruz-P., 1977), and as a valid species by Bernard (1983a)

Subgenus *Simplistrigilla* Olsson, 1961

- 580 *Strigilla (S.) serrata* Mörch, 1860. Extend distribution north to Cabo Tepoca, Sonora, Mexico (Skoglund, 1974). Distribution: northern end of the Gulf of California, Mexico, south to Ecuador (Keen & Coan, 1975).

Genus *Teninoconcha* Dall, 1921

- 582 *Temnoconcha cognata* (C.B. Adams, 1852). Length: 48.1 mm (Draper, 1987). Extend distribution south to Guayas, Ecuador (Skoglund, 1990b).

Family DONACIDAE
Classification follows Coan (1983a).
Genus *Donax* Linnaeus, 1758

- 583 *Donax asper* Hanley, 1845. Lectotype figured. Synonyms: *Donax granifera* Reeve, 1854, ex Deshayes MS; *D. rostratus* C.B. Adams, *auctt.*, non C.B. Adams, 1852. Length: 42 mm. Distribution: Gulf of Fonseca, El Salvador, to Tumbes Province, Peru. Intertidal on sand beaches (Coan, 1983a).
- *Donax assimilis* Hanley, 1845. Lectotype figured. Synonyms: *Donax panamensis* Philippi,

- 1849 [596]; *D. cayennensis* Lamarck, *auctt.*, *non* *D. caianensis* Lamarck, 1818; *D. curtus* Sowerby, 1866; *D. reevei* Bertin, 1881. Length: 44 mm. Distribution: Gulf of Fonseca, El Salvador, to the Gulf of Guayaquil, Ecuador. Intertidal zone in sand (Coan, 1983a).
- 588 *Donax dentifer* Hanley, 1843. Extend distribution north to the Gulf of Fonseca, El Salvador (Hernández, 1979). Lectotype figured. Delete *?Donax assimilis* Hanley, 1845, as synonym. Length: 48 mm. Distribution: Guatemala to Guayas Province, Ecuador, intertidal zone in sand (Coan, 1983a). Extend distribution north to Tapachula, Chiapas, Mexico (Coan, 1985).
- 596 *Donax panamensis* Philippi, 1849. Delete. Becomes a synonym of *Donax assimilis* Hanley, 1845 (Coan, 1983a).

Subgenus *Chion* Scopoli, 1777

- *Donax (C.) caelatus caelatus* Carpenter, 1857. Lectotype figured. Synonym: *Donax punctatostriatus* "var." *caelatus* Carpenter, 1857. Length: 49 mm. Distribution: Bahía de las Animas, Baja California; Guaymas, Sonora, Mexico, to Golfito, Costa Rica. Depth: intertidal zone to 3 m (Coan, 1983a). Extend distribution south to Panama (Coan, 1985).
- *Donax (C.) caelatus rothi* Coan, 1983. Length: 22 mm. Distribution: Canoa, Manabí Province, Ecuador, to Punta Sal, Piura Province, Peru. Depth: intertidal zone to 3 m (Coan, 1983a).
- 586 *Donax (C.) contusus* Reeve, 1854. Delete. Becomes synonym of *Donax culter* Hanley, 1845 [587] (Coan, 1983a).
- 587 *Donax (C.) culter* Hanley, 1845. Lectotype figured. Synonyms: *Donax contusus* Reeve, 1854 [586]; *D. conradi* Reeve, 1854; *D. bitinctus* Reeve, 1855; *D. californicus* Conrad, *auctt.*, *non* Conrad, 1837. Delete as synonyms: *D. petallina* Reeve, 1854; *D. petalina* Deshayes, 1855 [in part]; *Amphichaena gracilis* Mörch, 1860. Length: 47 mm. Distribution: Isla San Ignacio, Sonora, and La Paz, Baja California Sur, to Acapulco, Guerrero, Mexico. Depth: intertidal zone to 2 m (Coan, 1983a).
- 589 *Donax (C.) ecuadorianus* Olsson, 1961. Holotype figured. Length: 22 mm. Extend distribution north to Gulf of Fonseca, El

Salvador. Intertidal zone to 1 m (Coan, 1983a).

- 582 *Donax (C.) mancorensis* Olsson, 1961. Delete. Becomes synonym of *Donax obesus* Reeve, 1854 [594] (Coan, 1983a).
- 594 *Donax (C.) obesus* Reeve, 1854. Lectotype figured. Synonyms: *Donax peruvianus* Deshayes, 1855; *D. radiatus* Valenciennes, 1827; *D. aricanus* Dall, 1909; *D. mancorensis* Olsson, 1961 [592]; *D. punctatostriatus* Hanley, *auctt.*, *non* Hanley, 1843. Delete as synonyms: *?Donax granifera* Reeve, 1854; *D. curtus* Sowerby, 1866. Length: 38 mm. Distribution: Canoa, Manabí Province, Ecuador, to Bahía Moreno, Antofagasta Province, Chile (Coan, 1983a).
- 595 *Donax (C.) obesus* Orbigny, 1845. Holotype figured. Synonym: *Donax obesus* Reeve, *auctt.*, *non* Reeve, 1854. Length: 15.2 mm. Distribution: Gulf of Fonseca, El Salvador, to Manabí Province, Ecuador (Coan, 1983a).
- 598 *Donax (C.) punctatostriatus* Hanley, 1843. Lectotype figured. Synonym: *Donax sowerbyi* Bertin, 1881. Delete as synonym: *D. caelatus* Carpenter, 1857. Length: 48 mm. Distribution: Isla Cedros; Laguna San Ignacio, Baja California Sur, and throughout the Gulf of California, to Manzanillo, Colima, Mexico. Intertidal zone to about 5 m (Coan, 1983a).

Subgenus *Machaerodonax* Römer, 1870

- 585 *Donax (M.) carinatus* Hanley, 1843. Holotype figured. Length: 52 mm. Distribution: Bahía Magdalena, Baja California Sur, and Altata, Sinaloa, Mexico, to Tumbes Province, Peru. Intertidal zone to 12 m (Coan, 1983a).
- 599 *Donax (M.) transversus* Sowerby, 1825. Length: 42 mm. Distribution: Altata, Sinaloa, Mexico, to Piura Province, Peru. Intertidal zone in sand (Coan, 1983a). Length: 47.3 mm (Draper, 1987).

Subgenus *Amphichaena* Philippi, 1847

- 600 *Donax (A.) kindermanni* (Philippi, 1847). Extend distribution south to the Gulf of Fonseca, El Salvador (Hernández, 1979). Lectotype figured. Add synonym: *Amphichaena gracilis* Mörch, 1860. Length: 48 mm. Distribution: Bahía Tenacatita, Jalisco, Mexico,

to Gulf of Fonseca, El Salvador. Intertidal zone in sand (Coan, 1983a).

Subgenus *Parodonax*
Cossmann, in Cossmann & Peyrot, 19II

- 584 *Donax (P.) californicus* Conrad, 1837. Synonym: *Donax navicula* Hanley, 1845 [593]. Length: 33 mm. Distribution: Ventura County, California, to and throughout the Gulf of California, Mexico, and south to Tumbes Province, Peru. Intertidal zone to 10 m in fine sand (Coan, 1983a).
- 591 *Donax (P.) gracilis* Hanley, 1845. Lectotype figured. Length: 30.2 mm. Extend depth to 50 m (Coan, 1983a).
- 593 *Donax (P.) navicula* Hanley, 1845. Delete. Becomes synonym of *Donax californicus* Conrad, 1837 [584] (Coan, 1983a).

Donax, s. l.

590 *Donax gouldii* Dall, 1921. Holotype figured. Synonyms: *Donax obesus* Gould, 1851, *non* Orbigny, 1845; *Donax obesus* Philippi, 1851, *non* Orbigny, 1845; *D. laevigatus* Reeve, 1854, *ex* Deshayes MS; *D. abruptus* Carpenter, 1857, *ex* Gould MS, *nom. nud.* Length: 31.5 mm. Distribution: Marin County, California, to Arroyo Conejo, Baja California Sur; Isla Socorro, Islas Revillagigedo, Mexico. Intertidal zone to 5 m. Records from Mexican mainland are probably in error (Coan, 1983a).

--- *Donax marinovichii* Coan, 1983. Synonyms: *Donax radiatus* Valenciennes, *auctt.*, *in part*, *non* Valenciennes, 1827; *D. peruvianus* Deshayes, *auctt.*, *in part*, *non* Deshayes, 1855. Length: 32 mm. Distribution: Salinas, Ecuador, to Tarapaca Province, Chile. Intertidal zone on sandy beaches (Coan, 1983a).

Genus *Iphigenia* Schumacher, 1817

601 *Iphigenia altior* (Sowerby, 1833). Lectotype figured. Length: 84 mm. Distribution: from Mazatlán, Sinaloa, Mexico, south. Not found in the Gulf of California. Depth: intertidal zone to 11 m (Coan, 1983a). Length: 87 mm (Draper, 1987).

Family PSAMMOBIIDAE
Subfamily PSAMMOBIINAE
Genus *Gari* Schumacher, 1817

Subgenus *Gobraeus* Brown, 1844, *ex* Leach MS
As a genus (Hertlein & Grant, 1972).

- *Gari (G.) californica* (Conrad, 1849). Synonym: *Psammobia rubroradiata* Carpenter, 1864, *ex* Nuttall MS. Holotype figured. Valve interior figured. Distribution: Shelikof Strait, Alaska, to Bahía Magdalena, Baja California Sur, Mexico. Depth: intertidal zone to 168 m (Coan, 1973b). Add synonym: *Psammobia kazusensis* Yokoyama, 1922 (Bernard, 1983a). Length: 148.6 mm (Draper, 1987).
- 602 *Gari (G.) edentula* (Gabb, 1869). Synonym: *?Tellina fucata* Hinds, 1845. Holotype and valve interior figured. Distribution: near Santa Barbara, to San Pedro, California, and possibly to Bahía Magdalena, Baja California Sur, Mexico (type locality of *Tellina fucata*). Depth: 5 to 137 m in fine sand (Coan, 1973b). Length: 136.5 mm (Draper, 1987).
- 603 *Gari (G.) heleneae* Olsson, 1961. Distribution: 4°N-29°S, intertidal zone (Bernard, 1983a). Extend distribution north to San Felipe, Baja California, and Guaymas, Sonora, Mexico. Holotype figured. Hinge with "chondrophore" and resilium figured (Myers, Gemmell & Hertz, 1984). Depth: 35 m (F. & L. Poorman, 1988).
- 606 *Gari (G.) maxima* (Deshayes, 1855). Length: 125 mm (Wagner & Abbott, 1990).
- 607 *Gari (G.) panamensis* Olsson, 1961. Holotype figured. No "chondrophore" (Myers, Gemmell & Hertz, 1984). Extend distribution south to Isla Gorgona, Colombia (von Prahl, 1986). Extend distribution north to Bahía San Carlos area, Sonora, Mexico. Depth: 20 to 35 m (F. & L. Poorman, 1988). Extend distribution south to Guayas, Ecuador (Skoglund, 1990b).
- 608 *Gari (G.) regularis* (Carpenter, 1864). Holotype figured. Distribution: Islas Coronados, Baja California, to Cabo San Lucas, Baja California Sur, Mexico, 18 to 37 m (Coan, 1973b). Holotype figured. No "chondrophore" or resilium (Myers, Gemmell & Hertz, 1984). Extend distribution into the Gulf of California in the Bahía San Carlos area, Sonora, Mexico. Intertidal zone (F. & L. Poorman, 1988). Length: 47.5 mm (Wagner & Abbott, 1990).

Genus *Heterodonax* Mörch, 1853

- 609 *Heterodonax pacificus* (Conrad, 1837). Extend distribution south to Tumbes, Peru (Peña, 1971). Lectotype figured. Distribution: Point Conception, California, and the entire Panamic Province to Peru. Depth: intertidal zone (Coan, 1973b).

Subfamily SANGUINOLARIINAE

Genus *Sanguinolaria* Lamarck, 1799Subgenus *Sanguinolaria*, s. s.

- 610 *Sanguinolaria* (S.) *ovalis* Reeve, 1857. Length: 31 mm (Draper, 1987).

Genus *Nuttallia* Dall, 1908

- *Nuttallia nuttallii* (Conrad, 1837). Synonyms: *Psammobia decora* Hinds, 1852; *Sanguinolaria grandis* Carpenter, 1857, ex Gould MS; *S. orcutti* Dall, 1921. Lectotype figured. Distribution: Bodega Bay, California, to Bahía Magdalena, Baja California Sur, Mexico. Intertidal zone of protected bays (Coan, 1973b). Length: 131 mm (Draper, 1987).

Subfamily SOLECURTINAE Orbigny, 1846

Genus *Solecurtus* Blainville, 1824

- 613 *Solecurtus lineatus* (Gabb, 1861). Synonym: *Solecurtus broggii* Pilsbry & Olsson, 1941. Distribution: 4°S-8°N (Bernard, 1983a).

- 614 *Solecurtus guaymasensis* Lowe, 1935. Extend distribution south to the Islas Galápagos, Ecuador (Finet, 1985). Length: 60.6 mm (Draper, 1987).

Genus *Tagelus* Gray, 1847Subgenus *Tagelus*, s. s.

- 615 *Tagelus* (T.) *affinis* (C.B. Adams, 1852). Lectotype figured. Distribution: Cayucos, California, to Ecuador. Intertidal in protected bays in mud, also reported to 73 m (Coan, 1973b). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a). Length: 62.8 mm (Draper, 1987).

- 616 *Tagelus* (T.) *californianus* (Conrad, 1857). Lectotype figured. Distribution: Humboldt Bay, California, to Baja California, and throughout

the Gulf of California, Mexico. Intertidal in muddy sand of protected bays (Coan, 1973b). Length: 128.3 mm (Draper, 1987).

- 617 *Tagelus* (T.) *dombeyi* (Lamarck, 1818). Synonym: *Solecurtus coquimbensis* Sowerby, 1874. Anatomy figured (Villarroel & Stuardo, 1977).
- 619 *Tagelus* (T.) *longisiniatus* Pilsbry & Olsson, 1932. Anatomy figured (Villarroel & Stuardo, 1977).
- 620 *Tagelus* (T.) *peruanus* (Dunker, 1862). Correct date (Keen & Coan, 1975).
- 621 *Tagelus* (T.) *violascens* (Carpenter, 1857). Delete the last sentence, line 5, beginning, "The figure..." (Keen & Coan, 1975).

Subgenus *Mesopleura* Conrad, 1868

- 622 *Tagelus* (M.) *bourgeoisae* Hertlein, 1951. Extend distribution south to Tumbes, Peru (Peña, 1971). Distribution: 3°S-29°N (Bernard, 1983a). Distribution confirmed to Yavaros, Sonora, Mexico (García-Cubas & Reguero, 1987). Length: 49 mm (Draper, 1987).
- 623 *Tagelus* (M.) *peruvianus* Pilsbry & Olsson, 1971. Length: 80.1 mm (Draper, 1987).
- 624 *Tagelus* (M.) *politus* (Carpenter, 1857). Extend distribution south to Tumbes, Peru (Olsson, 1961). Correct date of synonym, *Siliquaria nitidissima*, to Dunker 1862 (Keen & Coan, 1975). Intertidal zone (Bernard, 1983a). Depth: 35 m (F. & L. Poorman, 1988). Include Islas Galápagos in distribution (Coan, pers. comm., 1990).

Family SEMELIDAE

Classification follows Coan (1988b)

Genus *Semele* Schumacher, 1817Subgenus *Semele*, s. s.

- 625 *Semele* (S.) *bicolor* (C.B. Adams, 1852). Holotype figured. Delete *Amphidesma striosum* and *A. ventricosum* C.B. Adams, 1852, as synonyms. Extend distribution south to Peru. Length to 31.3 mm. Depth: intertidal zone to 20 m (Coan, 1988b).
- 626 *Semele* (S.) *californica* (Reeve, 1853, ex A. Adams MS). Lectotype figured. Distribution: Bahía San Luis Gonzaga, Baja California, to Bahía Santa María, Baja California Sur; Isla Venado, Bahía Algodones, to Guaymas,

- Sonora, Mexico. Length: to 42 mm (Coan, 1988b).
- *Semele (S.) clydosa* Bernard, 1983. Synonym: *Amphidesma punctatum* Sowerby, 1833, *non* Say, 1822. Distribution: Islas Galápagos. Depth: intertidal to 5 m (Bernard, 1983a). Delete. Becomes a synonym of *Semele sowerbyi* Tryon, 1869 [642] (Coan, 1988b).
- 627 *Semele (S.) corrugata* (Sowerby, 1833). Lectotype figured. Synonym: *Amphidesma croceum* Gould, 1850. Length: 97.8 mm. Restrict distribution to Ecuador and Peru. Depth: intertidal zone to 9 m (Coan, 1988b).
- *Semele (S.) decisa* (Conrad, 1837). Holotype figured. Synonyms: *Amphidesma rubrolineatum* Conrad, 1837; *Semele rubrotincta* Carpenter, "ex Conrad MS," 1857, *nom. nud.* Distribution: Santa Barbara County, California, to Cabo San Lucas, Baja California Sur, Mexico. Depth: intertidal zone to 46 m (Coan, 1973). Length: to 119.2 mm. Probably Bahía Magdalena, Baja California Sur, is southernmost record, as Cabo San Lucas record has not been verified in recent years (Coan, 1988b).
- 629 *Semele (S.) elliptica* (Sowerby, 1833). Extend distribution south to Tumbes, Peru (Peña, 1971). Lectotype figured. Distribution: Nicaragua to Ecuador (Coan, 1988b). Extend distribution north to Nayarit, Mexico (Reguero & García-Cubas, 1989).
- 630 *Semele (S.) flavescens* (Gould, 1851). Distribution: throughout the Gulf of California, Mexico, and south to Peru (Keen & Coan, 1975). Holotype figured (Gemmell, Myers & Hertz, 1987). Type locality corrected from San Diego, California, to Guaymas, Sonora, Mexico. Length: to 69 mm. Distribution: Isla Magdalena, Baja California Sur, throughout the Gulf of California, Mexico, to Peru. Depth: intertidal zone to 5 m (Coan, 1988b).
- 636 *Semele (S.) lenticularis* (Sowerby, 1833). Extend distribution north to Bahía de los Angeles, Baja California, Mexico (F. & L. Poorman, 1978). Extend distribution north to Puertecitos, Baja California, Mexico (Gemmell, Myers & Hertz, 1987). Synonym: *Amphidesma ventricosum* C.B. Adams, 1852. Holotype figured. Length: to 30.3 mm. Include entire Gulf of California, Mexico, in distribution. Depth: intertidal zone to 44 m (Coan, 1988b).
- 640 *Semele (S.) pilsbryi* Olsson, 1961. Holotype figured. Length: to 53.7 mm. Distribution: Guaymas, Sonora, Mexico, to Ecuador. Depth: intertidal zone to 18 m (Coan, 1988b).
- *Semele (S.) rubropicta* Dall, 1871. Lectotype figured. Synonym: *Semele ashleyi* Hertlein & Grant, 1972. Length: 52 mm. Distribution: Bahía Willard, Baja California, and possibly Guaymas, Sonora, in the Gulf of California, Mexico; Alaska to Isla Asunción on the Pacific coast of Baja California Sur, Mexico. Depth: intertidal zone to 55 m (Coan, 1988b).
- 642 *Semele (S.) sowerbyi* Tryon, 1869. Synonyms: *Amphidesma punctatum* Sowerby, 1833, *non* Say, 1822; *S. clydosa* Bernard, 1983 (Coan, 1988a). Lectotype of synonym, *Amphidesma punctatum*, figured. Length: 59.6 mm. Distribution restricted to the Islas Galápagos, Ecuador. Depth: intertidal zone to 13 m (Coan, 1988b).
- 650 *Semele (S.) tortuosa* (C.B. Adams, 1852). Holotype figured. Length: 56.2 mm. Extend distribution south to Puerto Parmar, Guayas Province, Ecuador. Depth: intertidal to 55 m (Coan, 1988b). Depth: 100 m (F. & L. Poorman, 1988).

Subgenus *Amphidesma* Lamarck, 1818

- 628 *Semele (A.) craneana* Hertlein & Strong, 1949. Holotype figured. Length: 42 mm. Distribution: Roca Consag, in the upper Gulf of California; Isla Smith, Bahía de los Angeles, Baja California, to Los Frailes, Baja California Sur; Punta San Antonio, Sonora, on the Mexican mainland; Isla Clarión, Islas Revillagigedo, Mexico. Depth: 32 to 110 m (Coan, 1988b).
- 631 *Semele (A.) formosa* (Sowerby, 1833). Synonym: *Semele verruculastra* [653] (Coan, 1983b). Lectotype figured. Length: to 77 mm. Distribution: Isla San Pedro Martír, Gulf of California, Mexico, to Santa Elena, Ecuador; Isla del Coco, Costa Rica. Depth: 1.5 to 68 m (Coan, 1988b).
- 638 *Semele (A.) pallida* (Sowerby, 1833). Synonyms: *Semele paziana* Hertlein & Strong, 1949 [639]; *S. simplicissima* Pilsbry & Lowe, 1932 [647]; *S. regularis* Dall, 1915, *non* Smith, 1885. Lectotype figured. Length: 41.1 mm. Distribution: Gulf of California as far north as Bahía San Carlos, Sonora, and Bahía

Concepción, Baja California Sur, Mexico, to Tumbes Province, Peru. Depth: 13 to 128 m (Coan, 1988a).

- 639 *Semele paziana* Hertlein & Strong, 1949. Delete. Becomes synonym of *Semele pallida* (Sowerby, 1833) [638] (Coan, 1988a).
- 649 *Semele (A.) purpurascens* (Gmelin 1791). Synonym: *Semele sparsilineata* Dall, 1915. Distribution includes the Caribbean (Coan, 1988a). Add synonyms: *Tellina obliqua* Wood, 1815; *Amphidesma variegata* Lamarck, 1818. Lectotype of *Semele sparsilineata* figured. Length: 33.5 mm. Distribution: Bahía San Carlos, Sonora, Mexico, south to Ecuador, including the Islas Galápagos; Isla del Coco, Costa Rica; western Atlantic. Depth: intertidal zone to 78 m (Coan, 1988b).
- 647 *Semele simplicissima* Pilsbry & Lowe, 1932. Delete. Becomes synonym of *Semele pallida* (Sowerby, 1833) [638] (Coan, 1988a).
- 651 *Semele (A.) venusta* (Reeve, 1853, ex A. Adams, MS). Synonym: *Semele incongrua* Carpenter, 1864 (Coan, 1988a). Add synonym: *Semele pulchra* "var." *montereyi* Arnold, 1903. Lectotype figured. Length: 27.8 mm. Distribution: Monterey, California, and into the Gulf of California as far north as Isla Angel de la Guarda, Mexico, and south to Peru; Islas Galápagos, Ecuador. Depth: 10 to 183 m (Coan, 1988b).
- 653 *Semele verruculastra* Keen, 1966. Delete. Becomes a synonym of *Semele formosa* (Sowerby, 1833) [631] (Coan, 1983b).

Subgenus *Elegantula* de Gregorio, 1884

- *Semele (E.) rupicola* Dall, 1915. Synonym: *Amphidesma rupium* (Sowerby), *auctt.*, *non* (Sowerby, 1833). Lectotype figured. Distribution: South Farallon Island, California, to Cabo San Lucas, Baja California Sur, Mexico. Depth: intertidal zone to 27 m (Coan, 1973a). Lectotype figured. Length: 71.4 mm. Probably occurs no farther south than Bahía Magdalena, Baja California Sur, Mexico, as Cabo San Lucas record not verified in recent years. Depth: intertidal zone to 83 m (Coan, 1988b).
- 646 *Semele (E.) rupium* (Sowerby, 1833). Lectotype figured. Add Isla del Coco, Costa Rica, to distribution. Depth: 1 to 73 m (Coan, 1988b).

Semele, s. l.

- 648 *Semele barbareae* (Boone, 1928). Synonyms: *Semele sowerbyi* Lamy, 1912, *non* Tryon, 1869; *S. purpurascens* (Sowerby, 1833), *non* (Gmelin, 1791) (Coan, 1988a). Neotype figured. Length: 48.5 mm. Distribution: Guerrero, Mexico, to Guayas Province, Ecuador. Depth: 27 to 101 m (Coan, 1988b). Extend distribution north to Isla San Marcos, Gulf of California, Mexico (Hertz, 1991).
- 632 *Semele guaymasensis* Pilsbry & Lowe, 1932. Lectotype figured. Length: 27.8 mm. Distribution: Puerto Peñasco, Sonora, throughout the Gulf of California, and south to Bahía Chamela, Jalisco, Mexico. Depth: intertidal zone to 110 m (Coan, 1988b).
- *Semele jamesi* Coan 1988. Holotype figured. Length: 7.3 mm. Distribution: throughout the Gulf of California, Mexico, and south to Ecuador. Depth: 5 to 161169 m (Coan, 1988b).
- 633 *Semele jovis* (Reeve, 1853, ex A. Adams MS). Extend distribution north to between San Felipe and Roca Consag, Gulf of California, Mexico (Gemmell, Myers & Hertz, 1987). Synonym: *?Tellina lamellata* Carpenter, 1857. Delete as synonym: *?Tellina barbareae* Boone, 1928. Holotype figured. Length: 71.4 mm. Distribution: Bahía de Adair, Sonora, Mexico, to Puntarenas Province, Costa Rica. Depth: intertidal zone to 55 m (Coan, 1988b). Depth: 35 to 100 m (F. & L. Poorman, 1988).
- 634 *Semele junonia* (Verrill, 1870). Delete. Becomes synonym of *Semele rosea* (Sowerby, 1833) [644] (Coan, 1988a).
- 635 *Semele laevis* (Sowerby, 1833). Distribution: Mazatlán, Sinaloa, Mexico, to Ecuador (Keen & Coan, 1975). Add synonym: *Semele laevis costaricensis* Olsson, 1922. Length: 89.0 mm. Extend distribution north to Guaymas, Sonora, Mexico, and south to Peru. Depth: intertidal to 27 m (Coan, 1988b).
- 641 *Semele pulchra* (Sowerby, 1832). Lectotype figured. Synonym: *Semele quentinensis* Dall, 1921 [643]. Distribution: Point Mugu, California, to Peru. Depth: intertidal zone to 46 m. (Coan, 1973a). Add synonyms: *Amphidesma striosum* C.B. Adams, 1852; *?Mesodesma rubrotincta* Gould, 1857, *ex* "Sowerby" MS, *nom. nud.* Length: 31.9 mm.

- Depth: intertidal to 110 m (Coan, 1988b).
- 643 *Semele quentinensis* Dall, 1921. Delete. Becomes synonym of *Semele pulchra* (Sowerby, 1832) [641] (Coan, 1988b).
- 644 *Semele rosea* (Sowerby, 1833). Synonyms: *Semele junonia* (Verrill, 1870) [634]; *S. tabogensis* Pilsbry & Lowe, 1932 [645] (Coan, 1988a). Add synonyms: ?*Tellina regularis* Carpenter, 1857; *Semele leana* Dall, 1900. Lectotype figured. Length: 84.8 mm. Distribution: Bahía Magdalena, Baja California Sur, into the Gulf of California as far north as Bahía de los Angeles, Baja California, and Bahía San Carlos, Sonora, Mexico, and south to Peru. Depth: intertidal zone to 113 m (Coan, 1988b).
- 645 *Semele tabogensis* Pilsbry & Lowe, 1932. Delete. Becomes synonym of *Semele rosea* (Sowerby, 1833) [644] (Coan, 1988a).
- 652 *Semele verrucosa verrucosa* Mörch, 1860. Synonym: *Semele guaymasensis* Pilsbry & Lowe, *auctt, non* Pilsbry & Lowe, 1932. Lectotype figured. Length: 23.7 mm. Distribution: Nicaragua to Panama. Depth: intertidal zone to 23 m (Coan, 1988b).
- 637 *Semele verrucosa pacifica* Dall, 1915. Synonyms: *Semele jaramija* Pilsbry & Olsson, 1941; *S. hertleini* Durham, 1950. Holotype of *S. pacifica*, figured. Length: 26.6 mm. Distribution: Isla Cedros, Baja California, throughout the Gulf of California, and south to Oaxaca, Mexico. Depth: intertidal to 128 m (Coan, 1988b).

Genus *Abra* Lamarck, 1818, ex Leach MS
Subgenus *Abra*, s. s.

- *Abra (A.) californica* Knudsen, 1970. Length: 20.8 mm. Distribution: southern Baja California, Mexico. Depth: 3481 to 3518 m (Knudsen, 1970).

Abra, s. l.

Keen numbers 654 & 655 belong here (Bernard, 1983a).

- 654 *Abra palmieri* Dall, 1915. As a synonym of *A. tepocana* Dall, 1915 [655] (Abbott, 1974). A valid species (Bernard, 1983a).
- 655 *Abra tepocana* Dall, 1915.

Genus *Cumingia* Sowerby, 1833

- 656 *Cumingia adamsi* Olsson, 1961, ex Carpenter MS. Add MS (Keen & Coan, 1975).
- 657 *Cumingia lamellosa* Sowerby, 1833. Include the Islas Galápagos, Ecuador, in distribution (Finet, 1985). Length: 21.3 mm (Draper, 1987).
- 659 *Cumingia pacifica* (Dall, 1915). Distribution: north end of the Gulf of California to Guaymas, Sonora, Mexico (Keen & Coan, 1975).

Genus *Semelina* Dall, 1900

- 661 *Semelina subquadrata* (Carpenter, 1857). Depth: 35 m (F. & L. Poorman, 1988).

Superfamily SOLENACEA

Family SOLENIDAE

Genus *Solen* Linnaeus, 1758

Correct author from Scopoli, 1777 (Keen & Coan, 1975).

Subgenus *Solen*, s. s.

- 665 *Solen (S.) pazensis* Lowe, 1935. Distribution: 16°N-29°N (Bernard, 1983a). Delete. Becomes synonym of *Solen pfeifferi* Dunker, 1862 [666] (Gemmell, Myers & Hertz, 1987).

- 666 *Solen (S.) pfeifferi* Dunker, 1862. Extend distribution south to Tumbes, Peru (Peña, 1971). Synonym: *Solen pazensis* Lowe, 1935 [665]. Extend distribution north to San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987).

- 667 *Solen (S.) rosaceus* Carpenter, 1864. Depth: intertidal to 46 m (Hertlein & Grant, 1972).

Subgenus *Solena* Mörch, 1853

- 668 *Solen (S.) obliquus rudis* (C.B. Adams, 1852). Treated as a subspecies of the Caribbean *Solen (S.) obliquus* Spengler, 1794. Length: 160 mm (Woodring, 1982).

Family CULTELLIDAE Davies, 1935

Genus *Ensis* Schumacher, 1817

- 669 *Ensis nitidus* (Clessin, 1888). Synonym: *Ensis californicus* Dall, 1899. Restrict distribution to 25°N-30°N (Bernard, 1983a). Extend the

distribution north to San Felipe, Baja California, Mexico. Valve interior figured (Gemmell, Myers & Hertz, 1987). Length: 89 mm (Draper, 1987).

Order MYOIDEA

Suborder MYINA

Superfamily MYACEA

Family MYIDAE

Genus *Cryptomya* Conrad, 1848

- 671 *Cryptomya californica* (Conrad, 1837). Add synonyms: *Cryptomya oregonensis* Dall, 1919; *C. quadrata* Arnold, 1909; *C. washingtoniana* Weaver, 1912; *C. busoensis* Yokoyama, 1922; *Mya inopia* Hanna, 1924; *Cryptomya kamtschatica* Ilyina, 1963. Add northwest Pacific to distribution (Bernard, 1983a).

Genus *Sphenia*

- 673 *Sphenia luticola* (Valenciennes, 1846). Synonyms: *Sphenia fragilis* (H. & A. Adams, 1856); *S. trunculus* Dall, 1916; *S. pholadidea* Dall, 1916; *Cuspidaria nana* Oldroyd, 1918. Include the Islas Galápagos, Ecuador, in distribution. Depth: 10 to 55 m (Bernard, 1983a). Valve exterior and detail of ligament figured (Gemmell, Myers & Hertz, 1987).

Family CORBULIDAE

Genus *Corbula* Bruguière, 1797

Subgenus *Caryocorbula* Gardner, 1926

- 675 *Corbula (C.) luteola* Carpenter, 1864. As subgenus *Lentidium* Cristofori & Jan, 1832. Add synonym: *C. luteola rosea* Williamson, 1905, non Reeve, 1844 (Hertlein & Grant, 1972). Distribution: Monterey, California, to the Gulf of California, Mexico (McLean, 1978). In lagoons along the Sonoran coast of Mexico from Guaymas to Agiabampo (García-Cubas & Reguero, 1987).

- 676 *Corbula (C.) marmorata* Hinds, 1843. Distribution: 2°S-28°N (Bernard, 1983a). Depth: 35 m (F. & L. Poorman, 1988).

- 677 *Corbula (C.) nasuta* Sowerby, 1833. Depth: 90 m (Cruz-P., 1977).

- 678 *Corbula (C.) nuciformis* Sowerby, 1833. Extend distribution north to near Santa Rosalia, Baja

California Sur, Mexico (Draper, 1972). Extend distribution south to Peru (Abbott, 1974). Extend distribution across Gulf of California to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).

- 680 *Corbula (C.) ovulata* Sowerby, 1833. Length: 25.8 mm (Draper, 1987).

- 681 *Corbula (C.) porcella* Dall, 1916. Extend distribution south to Esmeraldas, Ecuador (Cruz-P., 1977). Bernard (1983a) restricts distribution from 17°N to 33°N.

Subgenus *Hexacorbula* Olsson, 1932

- 683 *Corbula (H.) esmeralda* Olsson, 1961. Depth: 47 m (Cruz-P., 1977).

Subgenus *Juliacorbula*
Olsson & Harbison, 1953

- 684 *Corbula (J.) bicarinata* Sowerby, 1833. Extend distribution south to Peru (Abbott, 1974). Depth to 9 m (Cruz-P., 1977). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).

- 685 *Corbula (J.) biradiata* Sowerby, 1833. Extend distribution south to Peru (Abbott, 1974). Include the Islas Galápagos, Ecuador, in distribution (Bernard, 1983a).

- *Corbula (J.) ecuabula* Pilsbry & Olsson, 1941. Length: 18 mm. Distribution: Punta Blanca, Ecuador, to Zorritos, Peru (Olsson, 1961).

- 686 *Corbula (J.) elenensis* (Olsson, 1961). Depth: 43 to 90 m (Cruz-P., 1977).

- 687 *Corbula (J.) ira* Dall, 1908. Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Extend distribution south to Esmeraldas, Ecuador. Depth: 47 m (Cruz-P., 1977). Extend distribution north to Bahía de los Angeles, Baja California, Mexico (F. & L. Poorman, 1978). Extend distribution across the Gulf of California to Bahía San Carlos, Sonora, Mexico (F. & L. Poorman, 1988).

Subgenus *Serracorbula* Olsson, 1961

- 690 *Corbula (S.) tumaca* (Olsson, 1961). Extend distribution north to the Gulf of Fonseca, El Salvador (Hernández, 1979).

- Subgenus *Tenuicorbula* Olsson, 1932
- 691 *Corbula (T.) tenuis* Sowerby, 1833. Distribution: 3°S-8°N (Bernard, 1983a).
- Subgenus *Varicorbula* Grant & Gale, 1931
- 692 *Corbula (V.) speciosa* Reeve, 1843. Extend distribution across the Gulf of California to Bahía San Carlos, Sonora, Mexico. Depth: 20 to 35 m (F. & L. Poorman, 1988).
- Family SPHENIOPSISIDAE
- Genus *Spheniopsis* Sandberger, 1861
- *Spheniopsis frankbernardi* Coan, 1990. Length: 3.2 mm. Distribution: Punta San Pablo, on the Pacific coast of Baja California Sur, to Cabo San Lucas; into the Gulf of California as far north as Puertecitos, Baja California, Mexico, and south to Playas del Coco, Guanacaste Province, Costa Rica. Depth: 13 to 91 m (Coan, 1990b).
- Genus *Grippina* Dall, 1912
- 693 *Grippina californica* Dall, 1912. Synonym: *Grippina berryana* Keen, 1971. Holotype and hinge figured. Distribution: Santa Barbara County, California, to Isla Cedros, Baja California; in the Gulf of California as far north as Punta Gorda, Baja California Sur, Mexico, to Isla del Caño, Puntarenas Province, Costa Rica. Depth: intertidal zone to 42 m (Coan, 1990b).
- Superfamily GASTROCHAENACEA
- Family GASTROCHAENIDAE
- Genus *Gastrochaena* Spengler, 1783
- *Gastrochaena denticulata* Deshayes, 1855. Distribution: 12°S-6°N, intertidal zone (Bernard, 1983a).
- 694 *Gastrochaena ovata* Sowerby, 1834. Anatomy figured. Add tropical west Atlantic to distribution (Carter, 1978). Add synonym: *Gastrochaena hyalina* Sowerby, 1834. Distribution: 1°S-28°N, including L'île Clipperton, (France), the Islas Galápagos, Ecuador; Atlantic (Bernard, 1983a).
- 695 *Gastrochaena rugulosa* Sowerby, 1834. Occurrence in the Islas Galápagos, Ecuador, doubtful (Finet, 1985). Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth: 20 m (F. & L. Poorman, 1988).
- 696 *Gastrochaena truncata* Sowerby, 1834. Synonym: *Gastrochaena folini* Deshayes in Folin, 1867 (Bernard, 1983a).
- Superfamily HIATELLACEA
- Family HIATELLIDAE
- Genus *Hiatella* Bosc, 1802, ex Daudin MS
- 697 *Hiatella arctica* (Linnaeus, 1767). Synonym: *Hiatella solida* (Sowerby, 1834) [698] and ca. 50 others worldwide. A cosmopolitan species that reaches an extreme size of ca. 70 mm in the arctic (Beu, 1971).
- 698 *Hiatella solida* (Sowerby, 1834). Delete. Becomes a synonym of *Hiatella arctica* (Linnaeus, 1767) [697] (Beu, 1971).
- Suborder PHOLADINA
- Superfamily PHOLADACEA
- Family PHOLADIDAE
- Subfamily PHOLADINAE
- Genus *Pholas* Linnaeus, 1758
- Subgenus *Thovana* Gray, 1847, ex Leach MS
- 700 *Pholas (T.) chiloensis* Molina, 1782. Changed from subgenus *Pholas*. Add synonym: *P. macrostoma* Philippi, 1858 (Bernard, 1983a).
- Genus *Barnea* Risso, 1826
- Subgenus *Anchomasa* Leach, 1852
- 701 *Barnea (A.) subtruncata* (Sowerby, 1834). Add synonym: *Pholas spathulata* Deshayes, 1843. Add subgenus (Kennedy, 1974). Distribution confirmed north in the Gulf of California to San Felipe, Baja California, Mexico (Gemmell, Myers & Hertz, 1987).
- Genus *Cyrtopleura* Tryon, 1862
- 702 *Cyrtopleura crucigera* (Sowerby, 1834). Synonyms: *C. "crucifera," auctt., nom. null.*; *C. exilis* (Tryon, 1870) (Abbott, 1974).
- Genus *Zirfaea* Gray, 1842, ex Leach MS

- *Zirfaea pilsbryii* Lowe, 1931. Length: 120 mm. Distribution: Arctic coast of Alaska to Bahía Magdalena, Baja California Sur, Mexico (Kennedy, 1974). Depth: intertidal zone to 125 m (Bernard, 1983a).

Subfamily JOUANNETIINAE

- Genus *Jouannetia* DesMoulins, 1828
Subgenus *Jouannetia*, s. s.

- 703 *Jouannetia (J.) duchassaingi* Fischer, 1862. Extend distribution north to Playa Naranjo, Costa Rica (Kemperman, 1990).

- Genus *Pholadopsis* Conrad, 1849
Raised from subgenus (Kennedy, 1974).

- 704 *Pholadopsis pectinata* (Conrad, 1849). Distribution: Isla Cedros, Baja California, through the Gulf of California, Mexico, and south to Peru (Kennedy, 1974).

Subfamily MARTESIINAE

- Genus *Martesia* Sowerby, 1824
Subgenus *Martesia*, s. s.

- 706 *Martesia (M.) fragilis* Verrill & Bush, 1898. Add synonym: *Pholadidea (Diploplax) exquisita* Bartsch & Rehder, 1945; *P. (D.) bahamensis* Bartsch & Rehder, 1945. Distribution: 9°N-20°N; also in Atlantic Ocean (Bernard, 1983a).

- 705 *Martesia (M.) striata* (Linnaeus, 1758). Add synonyms: *Pholas clavata* Lamarck, 1818; *P. tenuistriata* Blainville, 1826; *P. rosea* C.B. Adams, 1850; *P. cupula* Yokoyama, 1924; *Martesia striata tokyoensis* Yokoyama, 1927; *M. pulchella* Yokoyama, 1932; *M. hawaiensis* Dall, Bartsch & Rehder, 1938; *Mesopholas intusgranosa* Take & Habe, 1945; *M. nucicola* Take & Habe, 1945; *Martesia (Diploplax) funiscola* Bartsch & Rehder, 1945; *M. (D.) americana* Bartsch & Rehder, 1945. Cosmopolitan in warm waters (Bernard, 1983a).

Subgenus *Particoma* Bartsch & Rehder, 1945

- 707 *Martesia (P.) cuniformis* (Say, 1822). Add Islas Galápagos, Ecuador, to distribution (Keen & Coan, 1975). Synonym: *Pholas caribaea* Orbigny, 1842. Add subgenus (Bernard, 1983a).

Genus *Diplothyra* Tryon, 1862

- 708 *Diplothyra curta* (Sowerby, 1834). Distribution restricted 17°N-30°N (Bernard, 1983a). Valve interior and exterior figured (Gemmell, Myers & Hertz, 1987).

Genus *Parapholas* Conrad, 1848

- 710 *Parapholas calva* (Sowerby, 1834). Distribution: 1°S-29°N, including the Islas Galápagos, Ecuador. Intertidal zone (Bernard, 1983a). Depth: 35 m (F. & L. Poorman, 1988).

Subfamily XYLOPHAGAINAE

- Genus *Xylophaga* Turton, 1822

- *Xylophaga globosa* Sowerby, 1835. Distribution: Panama to Chile (Kennedy, 1974).

- 715 *Xylophaga mexicana* Dall, 1908. Distribution: southern California to Acapulco, Guererro, Mexico (Kennedy, 1974).

Family TEREDINIDAE

Subfamily TEREDININAE

- Genus *Teredo* Linnaeus, 1758

Subgenus *Teredo*, s. s.

- 722 *Teredo (T.) bartschi* Clapp, 1923. Extend distribution to Laguna Caimanero (near Mazatlán), Sinaloa, Mexico (Hendrickx, 1980). Synonyms: *T. (Teredo) batilliformis* Clapp, 1924; *T. (T.) hiloensis* Edmonson, 1942. Cosmopolitan in warm water, floating (Bernard, 1983a).

Genus *Lyrodus* Gould
in Gould & Binney, 1870

Pallets with a brown, easily shed periostracal cap (Keen & Coan, 1975).

- *Lyrodus bipartitus* (Jeffreys, 1860). Distribution: Gulf of Panama; English Channel. Depth: 3270 to 3670 m (Knudsen, 1970).

- *Lyrodus pedicellatus* (Quatrefages, 1849). Synonyms: *Teredo chlorotica* Gould, 1870; *T. diegensis* Bartsch, 1916; *T. (Lyrodus) townsendi* Bartsch, 1922; *T. (Teredops) floridana* Bartsch, 1922; *T. (Teredops) hawaiiensis* Dall, Bartsch & Rehder, 1938. Cosmopolitan in warm waters, 5°S-38°N (Bernard, 1983a). See Turner (1966)

for many additional synonyms.

Genus *Psiloteredo* Bartsch, 1922

- 723 *Psiloteredo healdi* (Bartsch, 1931). Synonym: *Teredo (Neoteredo) miraflora* Bartsch, 1922, *nom. dub.* (Bernard, 1983a).

Genus *Uperotus* Guettard, 1770

- 724 *Uperotus panamensis* (Bartsch, 1922). Synonym: *?Teredo lieberkindi* Roch, 1931. Include the Atlantic in distribution (Bernard, 1983a).

Subfamily BANKIINAE

Genus *Bankia* Gray, 1842

Subgenus *Bankiella* Bartsch, 1921

- 725 *Bankia (B.) gouldi* (Bartsch, 1908). Distribution: 25°N-28°N; Atlantic (Bernard, 1983a).

Subgenus *Neobankia* Bartsch, 1921

- *Bankia (N.) destructa* Clench & Turner, 1946. Distribution: Atlantic and Pacific sides of Central America (Abbott, 1974). Extend distribution north to Laguna Caimanero (near Mazatlán), Sinaloa, Mexico (Hendrickx, 1980).

- 726 *Bankia (N.) orcutti* Bartsch, 1923. Synonym: *Nausitoria sajnakhaliensis* Rajagopal, 1964. Distribution: 26°N-28°N; Indo-Pacific (Bernard, 1983a).

- 727 *Bankia (N.) zeteki* Bartsch, 1921. Extend distribution north to Teacapán, Sinaloa, Mexico (Hendrickx, 1980).

Subgenus *Plumulella* Clench & Turner, 1946

- 728 *Bankia (P.) cieba* Clench & Turner, 1946. Distribution: Greater Antilles to Colombia; Pacific side of Panama (Abbott, 1974).

Genus *Nausitora* Wright, 1864

- 730 *Nausitora dryas* (Dall, 1909). In line 3 read: "The shell is grayish white, often stained with reddish brown from boring in mangrove wood." (Keen & Coan, 1975).

- 731 *Nausitora excolpa* (Bartsch, 1922). Delete the

synonym and the last sentence of the paragraph (Keen & Coan, 1975).

Genus *Nototeredo* Bartsch, 1923

- *Nototeredo knoxi* (Bartsch, 1917). Bahía de Panama (Keen & Coan, 1975).

Subclass ANOMALODESMATA

Follows Yonge & Morton (1980) and Morton (1981).

Order PHOLADOMYOIDA

Superfamily PANDORACEA

Family PANDORIDAE

Genus *Pandora* Bruguière, 1797

Subgenus *Pandora*, s.s.

- 732 *Pandora (P.) brevifrons* Sowerby, 1835. Extend distribution north to Roca Consag, Gulf of California, Mexico (DuShane & Brennan, 1969). Valve interior and details of hinge figured (Gemmell, Myers & Hertz, 1987).

- 733 *Pandora (P.) uncifera* Pilsbry & Lowe, 1932. Valve interior and details of hinge figured (Gemmell, Myers & Hertz, 1987). Depth: 35 to 50 m (F. & L. Poorman, 1988).

Subgenus *Clidiophora* Carpenter, 1864

- 734 *Pandora (C.) arcuata* Sowerby, 1835. Lectotype of synonym *Pandora (C.) claviculata* Carpenter, 1856, figured. Lectotype dentition figured. If Olsson's (1961) drawing of the dentition of *P. arcuata* is that species, it must be removed from the subgenus *Clidiophora* (Hertz, Myers & Gemmell, 1985).

- 738 *Pandora (C.) cornuta* C.B. Adams, 1852. Bright red periostracum along ventral margin. Extend distribution north to San Felipe, Baja California, Mexico. Figured (Gemmell, 1975). Change subgenus from *Pandorella*. Holotype dentition figured. Distribution: Laguna de Scammon, Baja California Sur; the head of the Gulf of California at San Felipe, Baja California; Puerto Peñasco south to Guaymas, Sonora, Mexico; Panama (Hertz, Myers & Gemmell, 1985). Length: 35 mm (Wagner & Abbott, 1990).

Subgenus *Pandorella* Conrad, 1863

739 *Pandora (P.) granulata* Dall, 1915. Bernard (1983) restricts distribution from 24°N to 29°N.

740 *Pandora (P.) radiata* Sowerby, 1835. Distribution: 23°N-28°N (Bernard, 1983a).

Family LYONSIIDAE

Contains only three marine genera. Subgeneric taxa represent ecomorphs and should not be used (Prezant, 1981).

Genus *Lyonsia* Turton, 1822

742 *Lyonsia californica* Conrad, 1837. Add synonyms: *Lyonsia gouldii* Dall, 1915; *L. californica haroldi* Dall, 1915. Distribution: 17°N-55°N (Bernard, 1983a). Length: 26.9 mm (Draper, 1987). Extend distribution south to Bahía Cocos, Costa Rica (Skoglund, 1990a).

Genus *Entodesma* Philippi, 1845

Synonym: *Agriodesma* Dall, 1909 (Prezant, 1981).

744 *Entodesma inflatum* (Conrad, 1837). Delete. Becomes synonym of *Entodesma pictum* (Sowerby, 1834) [748] (Bernard, 1983a).

745 *Entodesma brevifrons* (Sowerby, 1834).

746 *Entodesma sechuranum* Pilsbry & Olsson, 1935. Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth: 20 m (F. & L. Poorman, 1988).

747 *Entodesma lucasanum* (Bartsch & Rehder, 1939). Delete subgenus *Phlycticoncha* (Prezant, 1981).

748 *Entodesma pictum* (Sowerby, 1834). Extend range south to Paita, Piura Province, Peru (Peña, 1971). Delete subgenus *Phlycticoncha* (Prezant, 1981). Add synonyms: *Lyonsia inflata* Conrad, 1837 [744]; *L. diaphana* Carpenter, 1856; *Entodesma spongiophila* Dall, 1871. Distribution: 4°S-37°N (Bernard, 1983a). Length: 32.2 mm (Draper, 1987). Anatomy figured (as *L. inflata*) (Morton, 1987).

Superfamily THRACIACEA

Blainville, 1824, ex Leach MS

Family PERIPLOMATIDAE

Genus *Periploma* Schumacher, 1817

Subgenus *Periploma*, s. s.

--- *Periploma (P.) margaritaceum* (Lamarck, 1801).

Synonyms: *Periploma inaequivalevis* Schumacher, 1817, non *P. inequivalevis* Schumacher, 1816, nom. nud.; *Anatina trapezoides* Lamarck, 1818; *Osteodesma trapezoidalis* Blainville, 1825, ex Lamarck MS; *Thracia inqualis* C.B. Adams, 1850. Interior figured. Length: 16.1 mm. Distribution: Bahía Chamela, Jalisco, Mexico; South Carolina to Texas; Caribbean (Bernard, 1989). Extend distribution from Punta Raza, Nayarit, to Bahía Cuastecomate, Jalisco, Mexico (Skoglund, 1991b).

753 *Periploma (P.) planiusculum* Sowerby, 1834. Length: 65.6 mm (Draper, 1987). Distribution: Point Conception, California, to Tumbes, Peru (Bernard, 1989).

Subgenus *Cricoploma* Bernard, 1989

749 *Periploma (C.) carpenteri* Dall, 1896. Extend distribution north to Bahía San Carlos, Sonora, Mexico. Depth to 100 m (F. & L. Poorman, 1988). Subgenus changed (Bernard, 1989).

750 *Periploma (C.) discus* Stearns, 1890. Holotype figured (Rosewater, 1980). Subgenus changed. Distribution restricted from 23°N to 37°N (Bernard, 1983a). Length: 37.4 mm (Draper, 1987). Interior figured (Bernard, 1989).

751 *Periploma (C.) largatillum* Olsson, 1961. Subgenus changed (Bernard, 1989).

752 *Periploma (C.) lenticulare* Sowerby, 1834. Extend distribution north to near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Subgenus changed. Add synonym: *Periploma obtusa* Hanley, 1842 (Bernard, 1989).

754 *Periploma (C.) stearnsii* Dall, 1896. Holotype figured (Rosewater, 1980). Subgenus changed (Bernard, 1989).

755 *Periploma (C.) teevani* Hertlein & Strong, 1946. Subgenus changed (Bernard, 1989).

Genus *Albimanus* Pilsbry & Olsson, 1935
Raised from subgenus (Bernard, 1989).

756 *Albimanus pentadactylus* (Pilsbry & Olsson, 1935). Extend distribution north to El Salvador (Hernández, 1979). Holotype figured. Interior figured (Bernard, 1989).

Genus *Halistrepta* Dall, 1904
Raised from subgenus (Bernard, 1989).

- 757 *Halistrepta myrae* (Rogers, 1962). Holotype figured (Bernard, 1989).

Family THRACIIDAE
Follows Coan (1990a).

Genus *Thracia* Blainville, 1824, ex Leach MS
Correct author from Sowerby, 1823 (Coan, 1990a).

Subgenus *Ixartia* Gray, 1852

- 758 *Thracia (I.) anconensis* Olsson, 1961. Holotype figured. Subgenus added (Coan, 1990a).

- 760 *Thracia (I.) curta* Conrad, 1857. Subgenus changed. Restrict distribution 23°N-45°N (Bernard, 1983a). Synonyms: *Lepton clementinum* Carpenter, 1857; *Thracia quentinensis* Dall, 1921. Holotype figured. Length: 53 mm. Restrict distribution from the San Juan Islands, Washington, to Punta Quepos, Puntarenas Province, Costa Rica. Depth: intertidal zone to 48 m (Coan, 1990a).

Subgenus *Odoncineta* Costa, 1829

- *Thracia (O.) bereniceae* Coan 1990. Holotype figured. Length: 17.5 mm. Distribution: Bahía Cholla, Sonora, Mexico, to Bahía Ballena, Gulf of Nicoya, Costa Rica. Depth: intertidal zone to 46 m (Coan, 1990a).

- 761 *Thracia (O.) squamosa* Carpenter, 1856. Subgenus added. Holotype figured. Length: 36 mm. Extend distribution south to Islas Las Perlas, Panama. Depth: intertidal zone to 61 m (Coan, 1990a).

Genus *Asthenothaerus* Carpenter, 1864

Subgenus *Asthenothaerus*, s. s.

- *Asthenothaerus (A.) diegensis* (Dall, 1915). Lectotype figured. Length: 11.0 mm. Distribution: San Pedro, Los Angeles County, California, to Bahía Magdalena, Baja California Sur, Mexico; Bahía de los Angeles, Baja California; Guaymas, Sonora, Mexico. Depth: intertidal zone to 119 m (Coan, 1990a).

- 762 *Asthenothaerus (A.) villosior* Carpenter, 1864. Extend distribution into the Gulf of California near Santa Rosalia, Baja California Sur, Mexico (Draper, 1972). Extend distribution across the Gulf of California to Bahía San Carlos, Sonora, Mexico. Depth: 35 m (F. & L. Poorman,

1988). Holotype figured. Delete *Thracia diegensis* Dall, 1915, as a synonym. Distribution: Isla Cedros, Baja California, throughout the Gulf of California, Mexico, and south to Punta Quepos, Puntarenas Province, Costa Rica. Depth: intertidal zone to 73 m (Coan, 1990a)

Subgenus *Skoglundia* Coan, 1990

- 759 *Asthenothaerus (S.) colpoica* (Dall, 1915). Genus changed from *Thracia* and subgenus added. Holotype figured. Length: 23.7 mm. Distribution: Guaymas, Sonora, and La Paz, Baja California Sur, Mexico, south to Tumbes Province, Peru. Intertidal zone on mud flats (Coan, 1990a).

Genus *Bushia* Dall, 1886

Subgenus *Bushia*, s. s.

- *Bushia (B.) galapagana* (Dall, 1915). Known only from the Islas Galápagos, Ecuador (Coan, 1989). Holotype figured. Length: 25.9 mm. Known only from Isla del Coco, Costa Rica, and the Islas Galápagos, Ecuador. Depth: 57 to 83 m (Coan, 1990a).

- 763 *Bushia (B.) panamensis* (Dall, 1890). Add parentheses to author's name (Coan, 1990a).

- *Bushia (B.) phillipsi* Coan, 1990. Holotype figured. Length: 23 mm. Known only from Isla Smith, Bahía de los Angeles, Baja California, and Isla Danzante, Gulf of California, Mexico. Depth: 38 to 183 m (Coan, 1990a).

Subgenus *Pseudocyathodonta* Coan, 1990

- *Bushia (P.) draperi* Coan, 1990. Holotype figured. Length: 28.5 mm. Isla Danzante, Gulf of California, Mexico. Depth: 61 m. Known only from the holotype (Coan, 1990a).

Genus *Cyathodonta* Conrad, 1849

- 764 *Cyathodonta dubiosa* Dall, 1915. Synonym: *Cyathodonta pedroana* Dall, 1915 (Bernard, 1983a). Delete *C. pedroana* Dall, 1915, as a synonym. Holotype figured. Length: 40.2 mm. Distribution: Isla Smith, Bahía de los Angeles, Baja California, and Punta San Antonio,

- Sonora, to Puerto Guatulco, Oaxaca, Mexico. Depth: 13 to 183 m. Keen (1971, fig. 765) is this species (Coan, 1990a).
- 765 *Cyathodonta lucasana* Dall, 1915. Delete. Becomes a synonym of *Cyathodonta undulata* Conrad, 1849 [766] (Coan, 1990a).
- *Cyathodonta pedroana* (Dall, 1915). Lectotype figured. Length: 38 mm. Distribution: Monterey Bay, California, to Bahía Magdalena, Baja California Sur, Mexico. Depth: 9 to 114 m (Coan, 1990a).
- *Cyathodonta tumbeziana* Olsson, 1961. Holotype figured. Length: 37.6 mm. Distribution: Puerto Madero, Chiapas, Mexico, to Mancora, Tumbes Province, Peru. Depth: 13 to 26 m (Coan, 1990a).
- 766 *Cyathodonta undulata* Conrad, 1849. Lectotype figured. Synonym: *Cyathodonta lucasana* Dall, 1915 [765]. Delete as a synonym: *C. tumbeziana* Olsson, 1961. Length: 50.2 mm. Distribution: Bahía Magdalena, Baja California Sur, throughout the Gulf of California, Mexico, and south to Punta Organos, Peru; Islas Galápagos, Ecuador. Intertidal zone (Coan, 1990a). Length: 52.3 mm (Wagner & Abbott, 1990).

Superfamily POROMYACEA
 Family POROMYIDAE
 Genus *Poromya* Forbes, 1844
 Subgenus *Poromya*, s. s.

- 767 *Poromya (P.) perla* Dall, 1908. Length: 13.8 mm. Anatomy figured. Distribution: California (32°N) to Ecuador (3°N). Depth: 1994 to 3500 m (Knudsen, 1970). As subgenus *Cetoconcha*. Holotype figured. Distribution: Gulf of Panama to Ecuador (Bernard, 1974). Subgenus changed from *Cetoconcha*. Distribution: 3°N-24°N (Bernard, 1983a).

Subgenus *Cetoconcha* Dall, 1886

- 768 *Poromya (C.) scapha* (Dall, 1902). Holotype figured. Known only from the type locality (Bernard, 1974).
- 769 *Poromya (C.) smithi* (Dall, 1908). Holotype figured. Distribution: Acapulco, Guerrero, Mexico, to Patagonia, Argentina. Depth: 302 to 3439 m (Bernard, 1974). Distribution

restricted to 15°N (Bernard, 1983a).

Subgenus *Dermatomya* Dall, 1889

- 770 *Poromya (D.) equatorialis* Dall, 1908. Holotype figured (Bernard, 1974).
- 771 *Poromya (D.) mactroides* Dall, 1889. Holotype figured (Bernard, 1974).

Family CUSPIDARIIDAE
 Genus *Cuspidaria* Nardo, 1840
 Subgenus *Cuspidaria*, s. s.

- 772 *Cuspidaria (C.) chilensis* Dall, 1908. Holotype figured (Bernard, 1974).
- *Cuspidaria (C.) haasi* Knudsen, 1970. Length: 34.2 mm. Anatomy figured. Distribution: off central America. Depth: 3570 m (Knudsen, 1970). Holotype figured. Known only from the type locality (Bernard, 1974).
- 773 *Cuspidaria (C.) panamensis* Dall, 1908. Holotype figured (Bernard, 1974). Bernard (1983a) restricts distribution to 7°N. Depth: 100 m (F. & L. Poorman, 1988).
- 774 *Cuspidaria (C.) parapodema* Bernard, 1969. Holotype, anatomy and hinge figured (Bernard, 1974).
- *Cuspidaria (C.) parkeri* Knudsen, 1970. Length: 19.2 mm. Anatomy figured. Distribution: Gulf of California, Mexico (23°N). Depth: 2800 m (Knudsen, 1970). Holotype figured. Known only from the type locality (Bernard, 1974).
- 775 *Cuspidaria (C.) patagonica* (E. A. Smith, 1885). Holotype figured (Bernard, 1974). Delete. Distribution restricted to 50°S (Bernard, 1983a).

Genus *Cardiomya* A. Adams, 1864

- *Cardiomya balboae* (Dall, 1916). Holotype figured. Distribution: California. Depth: 55 to 128 m (Bernard, 1974). Distribution: 0°-34°N, including the Islas Galápagos, Ecuador. Depth: 45-170 m (Bernard, 1983a).
- 776 *Cardiomya californica* (Dall, 1886). Holotype and hinge figured (Bernard, 1974).
- 777 *Cardiomya costata* (Sowerby, 1834). Hinge figured (Bernard, 1974). Occurrence in the Islas Galápagos, Ecuador, doubtful (Finet, 1985). Length: 9.1 mm (Draper, 1987).

- 778 *Cardiomya didyma* (Hinds, 1843). Neotype figured (Bernard, 1974).
- 779 *Cardiomya ecuadoriana* (Olsson, 1961). Hinge figured. Distribution: Isla Angel de la Guarda, Gulf of California, Mexico, to Isla La Plata, Ecuador. Depth: 55 to 146 m (Bernard, 1974).
- 780 *Cardiomya isolirata* Bernard, 1969. Holotype figured (Bernard, 1974).
- 781 *Cardiomya lanieri* (Strong & Hertlein, 1937). Hinge figured (Bernard, 1974). Occurrence in the Islas Galápagos, Ecuador, doubtful (Finet, 1985).
- 782 *Cardiomya pectinata* (Carpenter, 1864). Holotype figured. Delete. Distribution (28°N-60°N) is north of the Panamic Province (Bernard, 1974).
- 783 *Cardiomya planetica* (Dall, 1908). Holotype figured. Delete. Distribution (28°N-60°N) is north of the Panamic Province (Bernard, 1974).
- 784 *Cardiomya pseustes* (Dall, 1908). Length: 27 mm. Knudsen (1970) regards *C. planetica* (Dall, 1908) as a synonym. Holotype figured (Bernard, 1974). Distribution: 7°N-49°N (Bernard, 1983a).

Genus *Myonera* Dall & Smith, 1886

- 785 *Myonera garretti* Dall, 1908. Holotype figured. Synonym: *M. mexicana* Knudsen, 1970 (Bernard, 1974). Delete *M. mexicana* Knudsen, 1970, as a synonym (Bernard, 1983a).
- *Myonera mexicana* Knudsen, 1970. Length: 21.8 mm. Valve interior and anatomy figured. Distribution: Mexico (14°N). Depth: 3529 m (Knudsen, 1970). Regarded as a synonym of *M. garretti* Dall, 1908 (Bernard, 1974). A valid species with a distribution of 14°N-57°N and a depth of 1110 to 3557 m (Bernard, 1983a).

Genus *Plectodon* Carpenter, 1864

- 786 *Plectodon scaber* Carpenter, 1864. As *Leiomya* (*Plectodon*). Anatomy figured. Extend distribution north to Santa Barbara, California (Bernard, 1974). *Plectodon* as a genus (Bernard, 1983a). Occurrence in the Islas Galápagos, Ecuador, doubtful (Finet, 1985).

Superfamily VERTICORDIACEA Bernard, 1974
Family VERTICORDIIDAE

Genus *Verticordia* Sowerby, 1844, ex Wood MS
Subgenus *Verticordia*, s. s.

- 787 *Verticordia* (*V.*) *aequacostata* A. Howard, 1950. Delete here. Genus changed. See *Haliris*.
- 788 *Verticordia* (*V.*) *hancocki* Bernard, 1969. Holotype figured. As subgenus *Trigonulina*. Known only from the type locality (Bernard, 1974). As subgenus *Verticordia* (Bernard, 1983a).
- 789 *Verticordia* (*V.*) *ornata* (Orbigny, 1846). As subgenus *Trigonulina*. Synonym: *Verticordia coelata* Verrill, 1884 (Bernard, 1974). As subgenus *Verticordia*. Synonym: *?Hippagus novemcostatus* A. Adams & Reeve, 1850 (Bernard, 1983a). Occurrence in the Islas Galápagos, Ecuador, doubtful (Finet, 1985).

Genus *Halocardia* Dall, 1895
As a subgenus of *Verticordia* (Bernard, 1974) and as a genus (Bernard, 1983a).

- 791 *Halocardia perpicata* (Dall, 1890). Anatomy figured. Add to distribution: Cabo San Lucas, Baja California Sur, Mexico (Bernard, 1974).

Genus *Haliris* Dall, 1886
As a genus (Bernard, 1971), a subgenus (Bernard, 1974), and a genus (Bernard, 1983a).

- 787 *Haliris aequacostata* (Howard, 1950). Holotype figured. Subgenus changed to *Trigonulina*. Add Islas Galápagos, Ecuador, to distribution (Bernard, 1974). Genus changed from *Verticordia* (*Trigonulina*) (Bernard, 1983a). Occurrence in the Islas Galápagos, Ecuador, doubtful (Finet, 1985).
- 790 *Haliris spinosa* Bernard, 1969. Holotype figured. Known only from the type locality (Bernard, 1974).

Genus *Lyonsiella* M. Sars, in G. Sars, 1872

- 792 *Lyonsiella magnifica* Dall, 1913. Holotype figured. Known only from the type locality (Bernard, 1974).

Genus *Policordia* Dall, Bartsch, & Rehder, 1939
Shell ovate, with fine radial ribs; edentulous; ligament in a groove (Keen & Coan, 1975). Synonymized with *Lyonsiella* by Bernard (1974).

--- *Policordia alaskana* (Dall, 1895). Length: 24 mm. Distribution: 9°N-55°N. Depth: 1097 to 3570 m (Knudsen, 1970). Holotype and anatomy figured (as *Lyonsiella alaskana*).

Distribution: Sitka, Alaska, to British Columbia, Canada; Santa Catalina Island, California (Bernard, 1974). As *Policordia*. Distribution 9°N-55°N (Bernard, 1983a).

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INDEX

- Abra, 48
 abruptus, *Donax*, 44
abyssicola, *Benthomodiolus*, 12
abyssicola, *Sarepta*, 5
abyssorum, *Bathyarca*, 8
Acar, 6
Acesta, 18
ACHARACIDAE, 2
Acharax, 2
acrita, *Sacella*, 4
Acrosterigma, 30
aculeatus, *Spondylus*, 18
acuta, *Polymesoda*, 21
Acutispinula, 5
adamas, *Anomia*, 19
adamsi, *Anadara*, 7
adamsi, *Crassinella*, 20
adamsi, *Cumingia*, 48
adamsi, *Mytilopsis*, 22
adamsianus, *Brachidontes*, 10
adansonii, *Lasaea*, 26
adelinae, *Crassatella*, 20
Adontorhina, 25
Adrana, 4
Adula, 12
aduncata, *Crassinella*, 20
Aeidimytilus, 10
aequacostata, *Haliris*, 56
aequacostata, *Verticordia*, 56
aequatorialis, *Anadara*, 7
aequinoctialis, *Pitar*, 34
aequisulcatus, *Pecten*, 16
aequitorialis, *Eucrassinella*, 20
aequizonata, *Lucinoma*, 24
affine, *Cardium*, 31
affinis, *Carditamera*, 21
affinis, *Hemicardia*, 31
affinis, *Tagelus*, 45
agapea, *Jupiteria*, 4
agassizii, *Lima*, 18
Agriodesma, 53
alaskana, *Lyonsiella*, 57
alaskana, *Policordia*, 57
alata, *Mactrellona*, 38
Albimanus, 53
Aligena, 27, 28
allyneana, *Mytilopsis*, 22
alope, *Placunonomia*, 19
alta, *Tellina*, 41
alternata, *Barbatia*, 7
alternata, *Cytherea*, 32
alternatus, *Pitar*, 33
altilis, *Polymesoda*, 21
altior, *Iphigenia*, 44
amathusia, *Chionopsis*, 36
amathusia, *Venus*, 36
amblia, *Nuculana*, 4
americana, *Martesia*, 51
americanus, *Modiolus*, 12
Americardia, 31
Amerycina, 26
amianta, *Tellina*, 39
Amiantis, 34
Amphichaena, 43
Amphidesma, 46
amplectans, *Angulus*, 39
ampliata, *Venus*, 36
amygdalina, *Petricola*, 37
Amygdalum, 12
anachoreta, *Petricola*, 37
Anadara, 7
ANADARINAE, 7
Anchomasa, 50
anconensis, *Thracia*, 54
angelica, *Myrakeena*, 14
angulosa, *Cytherea*, 34
Angulus, 39
angusta, *Mactra*, 38
annettae, *Nemocardium*, 31
annulata, *Lucinoma*, 24
Anodontia, 24
anomala, *Polymesoda*, 21
ANOMALODESMATA, 52
Anomia, 19
ANOMIACEA, 19
ANOMIIDAE, 19
anomioides, *Plicatula*, 15
antillarum, *Eucrassatella*, 20
Antinioche, 36
Apiocardia, 31
apodema, *Mercenaria*, 36
approximata, *Parvilucina*, 23
Arca, 6
ARCACEA, 6
arcana, *Chama*, 28
arces, *Pecten*, 16
Archivesica, 22
ARCIDAE, 6
arciformis, *Minormalletia*, 6
ARCINAE, 6
Arcinella, 29
ARCOIDA, 6
Arcopsis, 8
arctica, *Hiatella*, 50
ARCTICACEA, 22, 28
arcuata, *Pandora*, 52
arcuta, *Laeda*, 4
Ardeamya, 42
argentina, *Tivela*, 32
argis, *Tellina*, 40
Argopecten, 16
aricanus, *Donax*, 43
aristata, *Lithophaga*, 11
aristata, *Myoforceps*, 12
artemidis, *Lucina*, 23
ashleyi, *Semele*, 46
askoyana, *Tellina*, 39
asper, *Donax*, 42
asperrima, *Protothaca*, 37
aspersa, *Papyridea*, 30
assimilis, *Donax*, 42, 43
asthenodon, *Leporimetis*, 41
Asthenothaerus, 54
atossa, *Tindaria*, 5, 6
Atrina, 13
attenuata, *Lithophaga*, 11
aurantiaca, *Megapitaria*, 34
auricula, *Anadara*, 8
auriculata, *Arca*, 8
aurora, *Cytherea*, 32
aurora, *Psammotreta*, 42
AUTOBRANCHIA, 6
aviculina, *Cardita*, 20
Axinactis, 9
Axinola, 9
AXINOPSIDINAE, 25
azulensis, *Nucula*, 3
bahamensis, *Pholadidea*, 51
bailyi, *Barbatia*, 6
bakeri, *Orobitella*, 28
balboae, *Cardiomya*, 55
baltrana, *Diplodonta*, 25
Bankia, 52
Bankiella, 52
BANKIINAE, 52
barbarae, *Semele*, 47
barbarae, *Tellina*, 47
Barbatia, 6
Barnea, 50
bartschi, *Teredo*, 51
Basterotella, 28
Basterotia, 28
Bathyarca, 8
BATHYMODIOLINAE, 13
Bathymodiolus, 13
batilliformis, *Teredo*, 51
beebei, *Cardita*, 21
beebei, *Cyclocardia*, 21
beili, *Protothaca*, 36
belcheri, *Trachycardium*, 30
Bellascintilla, 25
Bellaxinea, 9
bellalammatus, *Pecten*, 17
Bellucina, 23
benedicti, *Hinnites*, 16

benthima, Minormalletia, 6
Benthomodiolus, 12
bereniceae, Thracia, 54
beringensis, Cuspidaria, 56
Bernardina, 28
BERNARDINIDAE, 28
berryana, Grippina, 50
berryi, Flabellipecten, 17
berryi, Pecten, 17
berryi, Pitar, 33
biangulata, Anadara, 8
biangulata, Scrobicularia, 41
biangulata, Trachycardium, 31
bicarinata, Corbula, 49
bicolor, Mytilus, 10
bicolor, Semele, 45
bicostata, Saccella, 4
bifrons, Anadara, 7
bifurcatus, Mytilus, 10
bifurcatus, Septifer, 10
bolleyi, Leptopecten, 17
bipartitus, Lyrodus, 51
bipenniferus, Lithophaga, 11
biradiata, Corbula, 49
biradiata, Cytherea, 32
biserialis, Cytherea, 32
bistriatus, Cyclopecten, 16
bitinctus, Donax, 43
BIVALVIA, 2
bodegensis, Tellina, 40
Bornia, 27
BORNIINAE, 27
Botula, 11, 12
bourgeoisae, Tagelus, 45
Brachidontes, 10
bramkampi, Barbatia, 7
brandtii, Arca, 7
branneri, Crassinella, 20
bresia, Ostra, 14
brevifrons, Entodesma, 53
brevifrons, Lunarca, 8
brevifrons, Pandora, 52
brevilineata, Venus, 35
brevirostris, Tellina, 40
broggi, Anomalocardia, 35
broggi, Chione, 35
broggii, Solecurtus, 45
buddiana, Chama, 29
bullata, Cyrcna, 21
bushae, Ledella, 5
Bushia, 54
busoensis, Cryptomya, 49
byronensis, Tivela, 32
caelatum, Phlyctiderma, 25
caelatus, Donax, 43
caesarina, Cytherea, 31
caianensis, Donax, 43

calbucana, Mactra, 32
calcar, Spinula, 5
calcarella, Leda, 5
calcifer, Spondylus, 18
calculus, Lucina, 25
californiana, Dimya, 15
californiana, Venus, 35
californianus, Mytilus, 9
californianus, Tagelus, 45
californica, Abra, 48
californica, Arcinella, 29
californica, Cardiomya, 55
californica, Codakia, 23
californica, Cryptomya, 49
californica, Gari, 44
californica, Gouldia, 32
californica, Grippina, 50
californica, Lyonsia, 53
californica, Mactra, 38
californica, Ostrea, 15
californica, Semele, 45
californicus, Donax, 43, 44
californicus, Ensis, 48
californiensis, Chione, 35
callamensis, Tellina, 40
callicomatus, Pitar, 33
callimene, Saccella, 4
Calloarca, 7
Callogonia, 22
callosa, Amiantis, 34
Callucina, 22
calva, Parapholas, 51
calyculata, Lithophaga, 11, 12
Calyptogena, 22
camerella, Leptopecten, 17
camina, Mulinia, 38
camuloensis, Arca, 7
canalifera, Lithophaga, 11
cancellaris, Linga, 23
candearia, Avicula, 14
canoia, Tucetona, 9
capax, Modiolus, 12
cardara, Ennucula, 3
CARDIACEA, 30
cardiformis, Cyrena, 21
CARDIIDAE, 30
cardilla, Nioche, 37
CARDINIIDAE, 20
Cardiomya, 55
Cardita, 20, 21
CARDITACEA, 20
Carditamera, 21
CARDITAMERINAE, 21
Cardites, 21
CARDITESINAE, 21
CARDITIDAE, 20
CARDITINAE, 20
carditoides, Rupellaria, 37
caribaea, Pholas, 51
carinata, Mactrellona, 38
carinatus, Donax, 43
carinulata, Mactra, 38
carlottensis, Macoma, 41
carlottensis, Nucula, 3
carnea, Thracia, 41
carpenteri, Periploma, 53
carpenteri, Tellina, 39
Caryocorbula, 49
caryonautes, Transennella, 32
casta, Psammobia, 42
casta, Tellina, 42
catalinae, Erycina, 26
catharius, Pitar, 34
Cavilinga, 22
cayennensis, Donax, 43
cecinella, Yoldiella, 5
centrifuga, Lucina, 22
cepio, Pododesmus, 19
cerritensis, Aligena, 28
cerritensis, Pecten, 17
cerrosensis, Ostrea, 15
Cetoconcha, 55
chacei, Erycina, 28
Chama, 28
CHAMACEA, 28
CHAMIDAE, 28
chemnitzii, Anadara, 8
chenuanus, Mytilis, 11
chenui, Gregariella, 11
chiclaya, Bornia, 27
chilensis, Chama, 29
chilensis, Cuspidaria, 55
chiloensis, Pholas, 50
Chion, 43
Chione, 35
CHIONINAE, 35
Chionista, 35
Chionopsis, 36
chiquita, Ctena, 24
Chlamys, 16
chlorotica, Teredo, 51
Choromytilus, 10
chrysosoma, Nucula, 3
cicerula, Strigilla, 42
cieba, Bankia, 52
ciliatus, Spondylus, 18
cinnamomea, Modiola, 12
CIRCINAE, 32
Circomphalus, 32
circularis, Argopecten, 16
cistula, Lasaea, 26
clarionense, Laevicardium, 31
clarionensis, Ctena, 24
clarionensis, Pseudochama, 29

clavata, *Pholas*, 51
 claviculata, *Pandora*, 52
Clementia, 34
 clementia, *Crassinella*, 20
 clementina, *Mysella*, 27
CLEMENTINIINAE, 34
 clementinum, *Lepton*, 54
Clidiophora, 52
clippertonensis, *Ctena*, 24
 clydosa, *Semele*, 46
coani, *Tellina*, 39
coarctata, *Crenella*, 11
 coccineus, *Spondylus*, 18
Codakia, 23, 24
coelata, *Verticordia*, 56
cognata, *Leporimetis*, 41
cognata, *Petricola*, 37
cognata, *Temnoconcha*, 42
cokeri, *Aligena*, 27
colombiana, *Ennucula*, 3
Colonche, 37
coloradoensis, *Mulinia*, 38
colpoica, *Amerycina*, 26
colpoica, *Asthenothaerus*, 54
columbiensis, *Crassostrea*, 15
columbiensis, *Protothaca*, 37
columbiensis, *Psammotreta*, 42
compacta, *Chama*, 29
compactus, *Pecten*, 16
compressa, *Mysella*, 28
compressa, *Pseudopythina*, 26
compressa, *Tindaria*, 5
compressus, *Limopsis*, 9
Compsomyax, 34
compta, *Chione*, 35
concentrica, *Woodia*, 24
conchaphila, *Ostreola*, 15
Conchocele, 25
concinna, *Anadara*, 7
concinna, *Tellina*, 42
concinnus, *Pitar*, 33
conradi, *Donax*, 43
conradi, *Leukoma*, 36
consanguineus, *Pitar*, 33
consors, *Trachycardium*, 30
contusus, *Donax*, 43
coquimbana, *Mactra*, 32
coquimbensis, *Solecurtus*, 45
corallina, *Chama*, 29
coralliophaga, *Gregariella*, 11
CORBICULACEA, 21
CORBICULIDAE, 21
Corbula, 49
CORBULIDAE, 49
cornea, *Felaniella*, 25
cornuta, *Pandora*, 52
corpulenta, *Arca*, 8

corpulenta, *Bathyarca*, 8
corrugata, *Pseudochama*, 30
corrugata, *Semele*, 46
cortezi, *Chione*, 35
corteziensis, *Crassostrea*, 15
corteziensis, *Ostrea*, 15
costaricensis, *Semele*, 47
costata, *Cardiomya*, 55
costellata, *Nuculana*, 4
Costelloleda, 4
coubiana, *Megacrenella*, 11
coxa, *Crassinella*, 20
craneana, *Semele*, 46
crassa, *Hinnita*, 16
crassa, *Ledella*, 5
Crassadoma, 16
CRASSATELLACEA, 19
CRASSATELLIDAE, 19
CRASSATELLINAE, 19
crassatelloides, *Cytherea*, 32
crassicostata, *Cardites*, 21
Crassinella, 20
crassiplicatus, *Pecten*, 16
Crassostrea, 15
CRASSOSTREINI, 15
Crenella, 10
CRENELLINAE, 10
crenifera, *Adrana*, 4
crenifera, *Chionopsis*, 36
Cricoploma, 53
cristagalli, *Mytilus*, 14
cristallina, *Tellina*, 40
crustulata, *Tellidorella*, 20
croceum, *Amphidesma*, 46
crucifera, *Cyrtopleura*, 50
crucigera, *Cyrtopleura*, 50
cruda, *Cardita*, 20
cruentatum, *Cardium*, 31
Cryptomya, 49
Ctena, 23, 24
Cucullaearpa, 7
CULTELLIDAE, 48
culter, *Donax*, 43
culturata, *Amerycina*, 26
Cumingia, 48
cumingianus, *Mytilus*, 10
cumingii, *Cyrena*, 21
cumingii, *Nemocardium*, 31
cumingii, *Pinna*, 13
cumingii, *Placunonomia*, 19
cumingii, *Scintilla*, 27
cumingii, *Tellina*, 40, 41
Cunearca, 7
cuneata, *Malletia*, 6
cuneata, *Minormalletia*, 6
cuniformis, *Martesia*, 51
cupula, *Pholas*, 51
curta, *Diplothyra*, 51
curta, *Thracia*, 27, 54
curtus, *Donax*, 43
Cuspidaria, 55
CUSPIDARIIDAE, 55
CYAMIACEA, 28
Cyathodonta, 54
cycla, *Adontorhina*, 25
Cyclinella, 34
CYCLININAE, 34
Cyclocardia, 21
Cyclopecten, 16
cystista, *Botula*, 12
Cymatioa, 26
Cymatoica, 41
Cyrtopleura, 50
Dacrydium, 13
dalli, *Limopsis*, 9
dalli, *Ostra*, 14
dalli, *Pseudochama*, 30
Dallocardia, 30
darella, *Nucula*, 3
darwinii, *Venus*, 36
decisa, *Semele*, 46
declivis, *Nucula*, 3
decora, *Psammobia*, 45
decumbens, *Tellina*, 39
decussata, *Eurhomalea*, 35
Delectopecten, 16
delesserti, *Chama*, 29
delesserti, *Glycymeris*, 9
delesserti, *Tivela*, 32
delgada, *Noetia*, 8
delosi, *Pecten*, 17
Dendostrea, 14
densata, *Mulinia*, 38
densilineata, *Lucinoma*, 24
denticulata, *Gastrochaena*, 50
denticulata, *Gregariella*, 11
denticulata, *Rupellaria*, 37
dentifer, *Donax*, 43
Dermatomya, 55
destructa, *Bankia*, 52
diaphana, *Lyonsia*, 53
Diberus, 11
dicella, *Yoldiella*, 5
dichotoma, *Strigilla*, 42
didyma, *Cardiomya*, 56
diegensis, *Asthenothaerus*, 54
diegensis, *Flabellipecten*, 17
diegensis, *Mytilus*, 10
diegensis, *Pecten*, 16
diegensis, *Teredo*, 51
diegensis, *Thracia*, 54
diguetti, *Chama*, 29
diguetti, *Crassatella*, 20
Dimya, 15

DIMYACEA, 15
 DIMYIDAE, 15
 diomedae, Acesta, 18
 dionaea, Mysella, 27
 Diplodonta, 25
 Diplothyra, 51
 discors, Petricola, 35
 discrepans, Phlyctiderma, 25
 discus, Periploma, 53
 disjuncta, Strigilla, 42
 dispar, Venus, 36
 distans, Artemis, 34
 distinguenda, Codakia, 23
 Divalinga, 24
 divaricalx, Lithophaga, 11
 divaricata, Barbatia, 6
 divaricata, Crenella, 10
 Divaricella, 24
 DIVARICELLINAE, 24
 diversa, Tapes, 36
 dolabriformis, Mactra, 38
 dombei, Leporimetis, 41
 dombeii, Tagelus, 45
 domingensis, Barbatia, 6
 domingensis, Dreissena, 22
 DONACIDAE, 42
 Donax, 42, 44
 Dosinia, 34
 DOSINIINAE, 34
 draperi, Bushia, 54
 DREISSENACEA, 22
 DREISSENIDAE, 22
 dryas, Nausitora, 52
 dubia, Cymatioa, 26
 dubiosa, Cyathodonta, 54
 duchassaingi, Jouanetia, 51
 dunkeri, Dosinia, 34
 duplicata, Cytherea, 32
 eburnea, Divalinga, 24
 eburnea, Saccella, 4
 eburnea, Solecardia, 27
 eburnea, Tellina, 39
 eccentrica, Cytherea, 32
 echinata, Chama, 29
 Ectenagenta, 22
 ecuabula, Corbula, 49
 ecuadoriana, Cardiomya, 56
 ecuadoriana, Crassinella, 20
 ecuadoriana, Protothaca, 37
 ecuadoriana, Tellina, 39
 ecuadorianus, Donax, 43
 edentula, Gari, 44
 edentuloides, Pegophysema, 24
 edulis, Macoma, 42
 edulis, Mytilus, 10
 edulis, Mytilus, 10
 Egesta, 34

Egeta, 21
 elatum, Laevicardium, 31
 electilis, Cymatioa, 26
 elegans, Harvella, 38
 elegans, Tivela, 32
 Elegantula, 47
 elegantulum, Dacrydium, 13
 elenense, Laevicardium, 31
 elenensis, Corbula, 49
 elenensis, Saccella, 4
 elliptica, Semele, 46
 ellipticum, Lepton, 27
 ellipticus, Irida, 35
 Elliptotellina, 39
 elongata, Tellina, 41
 Elpidollina, 39
 elytrum, Macoma, 41
 emarginata, Anadara, 8
 Ennucula, 3
 Ensis, 48
 Entodesma, 53
 Epilucina, 23
 equatorialis, Poromya, 55
 errati, Tellina, 40
 ERYCINIDAE, 26
 ERYCINIINAE, 26
 esmeralda, Anadara, 7
 esmeralda, Corbula, 49
 Esmerarca, 7
 estrellana, Mactra, 38
 Eucrassatella, 19
 Eucrassinella, 19
 Eurhomalea, 35
 Eurytellina, 39
 euterpes, Leptopecten, 17
 exarata, Petricola, 37
 exaratus, Mytilus, 10
 excavata, Conchocele, 25
 excavata, Here, 23
 excavata, Leda, 4
 excolpa, Nausitora, 52
 exigua, Nucula, 3
 exilis, Cyrtopleura, 50
 exilis, Mytilus, 10
 eximia, Avicula, 13
 eximia, Venus, 36
 exogrya, Pseudochama, 30
 exoleta, Mactrellona, 38
 exoptata, Adrana, 4
 expansa, Ostrea, 15
 exquisita, Pholadidea, 51
 exquisitus, Cyclopecten, 16
 fasciculatum, Pseudamussium, 18
 fastigata, Saccella, 4
 fausta, Lucina, 23
 favanni, Modiole, 12
 Felaniella, 25
 felix, Tellina, 39
 fenestrata, Lucina, 23
 fidenas, Anomia, 19
 filitexus, Pecten, 16
 fimbriata, Venerupis, 35
 fiora, Malletia, 6
 fisheri, Ostrea, 14
 Flabellipecten, 16
 flavesrens, Semete, 46
 floridana, Teredo, 51
 Florimetus, 41
 fluctifraga, Chione, 35
 fluctigera, Tellina, 40
 foliatus, Pododesmus, 19
 folini, Gastrochaena, 50
 folium, Dendostrea, 14
 fonsecana, Mactra, 38
 fontaineaus, Mytilis, 11
 fontaineii, Polymesoda, 21
 fordi, Globivenus, 32
 forficata, Lithophaga, 11
 formosa, Anadara, 8
 formosa, Semele, 46, 47
 fornicata, Chama, 29
 fragilis, Martesia, 51
 fragilis, Pecten, 17
 fragilis, Sphenis, 49
 FRAGINAE, 31
 frankbernardi, Spheniopsis, 50
 frizzelli, Pitar, 33
 frondosa, Chama, 29
 frons, Mytilus, 14
 fucata, Tellina, 44
 fuciculus, Pecten, 17
 Fugleria, 7
 funiscola, Martesia, 51
 fusca, Botula, 12
 galapagana, Bushia, 54
 galapagana, Ctena, 24
 galatheae, Kelliella, 22
 GALEOMMATACEA, 25
 GALEOMMATIDAE, 25
 Galeommella, 26
 galera, Cyclinella, 34
 galloprovincialis, Mytilus, 10
 gallus, Ostrea, 15
 Gari, 44
 garretti, Myonera, 56
 garthi, Chama, 29
 Gastrochaena, 50
 GASTROCHAENACEA, 50
 GASTROCHAENIDAE, 50
 gibbosa, Eucrassatella, 20
 gibbosa, Leda, 4
 gibbosa, Nucula, 4
 gibbosa, Nuculana, 4
 gibbosa, Raeta, 38

gibbosus, *Saxidomus*, 34
gigantea, *Crassadoma*, 16
gigantea, *Glycymeris*, 9
giganteus, *Hinnites*, 16
gigas, *Calyptogena*, 22
Globivenus, 31
globosa, *Xylophaga*, 51
glomeratus, *Mytilus*, 10
gloriosus, *Spondylus*, 18
GLOSSACEA, 22
GLYCYMERIDACEA, 9
GLYCYMERIDIDAE, 9
Glycymeris, 9
gnidia, *Chionopsis*, 36
Gobraeus, 44
goldbaumi, *Crassinella*, 20
gouldi, *Bankia*, 52
Gouldia, 32
gouldii, *Angulus*, 39
gouldii, *Donax*, 44
gouldii, *Lyonsia*, 53
gouldii, *Tellina*, 39
gracilior, *Lithophaga*, 11
gracilis, *Amphichaena*, 43
gracilis, *Donax*, 44
gracilis, *Petricola*, 37
gracillima, *Clementia*, 34
gradata, *Barbatia*, 6
Grandiarca, 8
grandis, *Anadara*, 8
grandis, *Dosinia*, 34
grandis, *Macoma*, 41
grandis, *Sanguinolaria*, 45
granifera, *Donax*, 42, 43
granifera, *Trigoniocardia*, 31
granti, *Pseudochama*, 30
granulata, *Pandora*, 53
grata, *Protothaca*, 37
graui, *Cyclopecten*, 16
grayi, *Cardites*, 21
Gregariella, 11
grewingkii, *Protothaca*, 36
grippi, *Mysella*, 27
Grippina, 50
GRYPHAEIDAE, 14
guadalupensis, *Glycymeris*, 9
guanacastensis, *Trachycardium*, 31
guanica, *Pleuromeris*, 21
guatulcoensis, *Chione*, 35
guaymasensis, *Semele*, 47, 48
guaymasensis, *Solecurtus*, 45
gndlachii, *Dreissenia*, 22
guyanensis, *Mytella*, 10
haasi, *Cuspidaria*, 55
Halicardia, 56
Haliris, 56
Halistrepta, 53

Halodakra, 28
hamata, *Nuculana*, 4
hancocki, *Lithophaga*, 12
hancocki, *Oppenheimopecten*, 17
hancocki, *Verticordia*, 56
haroldi, *Lyonsia*, 53
Harvella, 38
hawaiensis, *Arca*, 6
hawaiensis, *Botula*, 12
hawaiensis, *Cardita*, 20
hawaiensis, *Spondylus*, 18
hawaiensis, *Teredo*, 51
hawaiensis, *Martesia*, 51
haylocki, *Crassinella*, 20
healdi, *Psiloteredo*, 52
helenae, *Gari*, 44
helenae, *Pitar*, 33
hemphilli, *Limaria*, 19
Here, 23
Hertellina, 40
hertleini, *Basterotia*, 28
hertleini, *Pitar*, 33
hertleini, *Semele*, 48
hertleini, *Tellina*, 39
hesperius, *Pitar*, 33
hesperus, *Macoma*, 41
Heterodonax, 45
HETERODONTA, 19
Hexacorbula, 49
hians, *Tivela*, 32
Hiatella, 50
HIATELLACEA, 50
HIATELLIDAE, 50
hiberna, *Tellina*, 39
hiloensis, *Teredo*, 51
hindsii, *Saccella*, 4
Hinnites, 16
hoffstetteri, *Mactra*, 38
Huxleyia, 3
hyalina, *Gastrochaena*, 50
Hyalopecten, 17
Hybolophus, 19
hyotis, *Hyotissa*, 14
Hyotissa, 14
HYOTISSINI, 14
hyphalopilema, *Anadara*, 8
Hyphantosoma, 33
Hysteroconcha, 33
hystrix, *Spondylus*, 18
Iliochnone, 35
illota, *Fugleria*, 7
imitata, *Arca*, 8
impar, *Saccella*, 4
inaequivalvis, *Arca*, 7
inaequivalvis, *Periploma*, 53
incantata, *Chlamys*, 16
incisus, *Isognomon*, 14
incongrua, *Semele*, 47
incongruus, *Cyclopecten*, 16
incrassatus, *Cardita*, 21
incurva, *Lithophaga*, 11
indentata, *Macoma*, 42
inequalis, *Thracia*, 53
inequivale, *Periploma*, 53
inermis, *Chama*, 30
inezana, *Plicatula*, 15
inezensis, *Diplodonta*, 25
inflata, *Bornia*, 27
inflata, *Crenella*, 10
inflata, *Lyonsia*, 53
inflata, *Polymesoda*, 21
inflatum, *Entodesma*, 53
infra, *Botulopa*, 12
inopis, *Mya*, 49
insculpta, *Tellina*, 40
insignis, *Cyrena*, 21
intermedius, *Pectunculus*, 9
interrupta, *Cytherea*, 32
interrupta, *Strigilla*, 42
intersecta, *Venus*, 37
intusgranosa, *Mesopholas*, 51
Iphigenia, 44
iphigenia, *Nucula*, 3
ira, *Corbula*, 49
iridescent, *Ostrea*, 15
Irus, 35
isocardia, *Globivenus*, 32
isocardia, *Ventricularia*, 32
ISOFILIBRANCHIA, 9
Isognomon, 13
ISOGNOMONIDAE, 13
isolirata, *Cardiomya*, 56
Isorobitella, 28
Ixartia, 54
jadisi, *Cyclinella*, 34
jamaniana, *Chione*, 36
jamaniana, *Chionopsis*, 36
jamesi, *Semele*, 47
janus, *Isognomon*, 13
janus, *Pseudochama*, 30
jaramija, *Semele*, 48
joannis, *Phacoides*, 24
johnsoni, *Acharax*, 2
Jouannetia, 51
JOUANNETIINAE, 51
jovis, *Semele*, 47
juarezi, *Limopsis*, 9
Juliacorbula, 49
junonia, *Semele*, 47, 48
Jupiteria, 4
kamtschatica, *Cryptomya*, 49
Katadesmia, 6
kazusensis, *Psammobia*, 44
kellettii, *Chione*, 35

Kellia, 27
 Kelliella, 22
KELLIELLIDAE, 22
KELLIIDAE, 27
KELLIINAE, 27
kelseyi, Lithophaga, 11
kindermannii, Donax, 43
knoxi, Nototeredo, 52
koltchoffi, Portlandia, 6
kuaicensis, Spondylus, 18
kussakini, Mytilus, 10
labiosa, Anadara, 8
Labis, 11
Laciolina, 40
lacaea, Tellima, 27
LAEVICARDIINAE, 31
Laevicardium, 30, 31
laevigata, Leinosolenus, 12
laevigatus, Donax, 44
laevis, Crassatella, 20
laevis, Semele, 47
lamellata, Tellina, 47
Lamelliconcha, 33
lamellifera, Venus, 35
Lamellinucula, 3
lamellosa, Cumingia, 48
lampra, Lucina, 22
lamproleuca, Macoma, 41
lanieri, Cardiomya, 56
laperoussii, Chironia, 27
laperoussii, Kellia, 27
laplata, Tellina, 40
laqueata, Anomia, 19
largatillum, Periploma, 53
Larkinia, 7
larkinii, Arca, 8
laronus, Crassatellites, 20
Lasaea, 26
LASAEINAE, 26
latiaurata, Leptopecten, 17
latiauritus, Pecten, 17
laticaudata, Ostrea, 15
laticostata, Cardites, 21
latissimus, Mytilus, 10
lavezzarii, Globivenus, 32
laysana, Arca, 6
laysana, Botula, 12
laysana, Cardita, 21
leana, Semele, 48
lecontei, Gnathodon, 39
Ledella, 5
Ledellina, 5
LEDELLINAE, 5
lediforme, Lepton, 27
Leiomya, 56
Leionucula, 3
Leiosolenus, 12

lenticulare, Periploma, 53
lenticularis, Semele, 46
Lentidium, 49
leonilda, Yoldiella, 5
levida, Cytherea, 33
leridoformis, Tryphomyax, 26
Leporimetis, 41
Lepton, 27
Leptonidae, 26, 27
Leptopecten, 17
lessonii, Tivela, 32
leucocymoides, Linga, 23
leucophaeta, Mytilopsis, 22
Leukoma, 37
liana, Lucina, 22
libella, Avicula, 13
lieberkindi, Teredo, 52
ligamentina, Tellina, 42
Lima, 18
LIMACEA, 18
Limaria, 19
limata, Leda, 4
Limatula, 19
limatula, Anomia, 19
limbatis, Spondylus, 18
LIMIDAE, 18
LIMOIDA, 18
LIMOPSACEA, 9
LIMOPSIDAE, 9
Limopsis, 9
lindea, Spondylus, 18
lineatus, Solecurtus, 45
Linga, 23
linguae felis, Spondylus, 18
lingualis, Lucina, 22
linki, Ennucula, 3
lintea, Glycymeris, 9
Lioberus, 11
Lirophora, 35
Lithophaga, 11
LITHOPHAGINAE, 11
lobula, Neilonella, 6
longisinuatus, Tagelus, 45
LOPHINAE, 14
LOPHINI, 14
Lophocardium, 31
loshka, Nuculana, 4
lowei, Chlamys, 16
lucasana, Cyathodonta, 55
lucasana, Neilonella, 6
lucasana, Petricola, 37
lucasum, Entodesma, 53
Lucina, 22, 23
LUCINACEA, 22
LUCINIDAE, 22
LUCININAE, 22
Lucinoma, 24
Lunarca, 8
lunaris, Pecten, 17
lupanaria, Pitar, 33
lurida, Barbatia, 6
lurida, Ostrea, 15
luteobrunnea, Cytherea, 32
luteola, Corbula, 49
luticola, Bornia, 27
luticola, Sphenia, 49
Lyonsia, 53
Lyonsiella, 56
LYONSIIDAE, 53
lyra, Tellina, 40
Lyratellina, 40
Lyrodus, 51
macgintyi, Protothaca, 37
Machaerodonax, 43
Macoma, 41
macroschisma, Pododesmus, 19
Mactra, 38
MACTRACEA, 38
Mactrellona, 38
MACTRIDAE, 38
Mactroderma, 38
mactroides, Poromya, 55
Mactromeris, 39
Mactrotoma, 38
maculata, Glycymeris, 9
magdalena, Globivenus, 32
magnifica, Calyptogena, 22
magnifica, Lyonsiella, 56
magnificus, Nodipecten, 17
maldonadoensis, Crassinella, 20
MALLEIDAE, 14
Malletia, 6
MALLETIIDAE, 6
Malleus, 14
malpelonium, Amusium, 18
Malvufundus, 14
manabiensis, Crassinella, 20
manabiensis, Euressinella, 20
mancorensis, Donax, 43
mantaensis, Papyridea, 30
mantaensis, Tellina, 40
mantana, Yoldiella, 5
MANZANELLACEA, 3
marella, Nuculana, 4
margarita, Bernardina, 28
margarita, Merisca, 40
margaritaceum, Periploma, 53
marginata, Tivela, 32
mariae, Chione, 35
marincovichi, Donax, 44
maritima, Cyrena, 21
marmorata, Corbula, 49
Martesia, 51
MARTESIINAE, 51

martyria, Megayoldia, 5
maura, Atrina, 13
maxima, Gari, 44
mazatlanica, Anadara, 7
mazatlanica, Parvilucina, 23
mazatlanica, Pinctada, 13
mazatlanica, Psammotreta, 42
media, Leda, 4
Megacrenella, 11
Megapitaria, 34
megas, Crenella, 11
megastropha, Strophocardia, 21
Megayoldia, 5
megodon, Undulostrea, 15
Melina, 13
mendica, Rangia, 39
Mercenaria, 36
MERETRICINAE, 32
meridioale, Propeamussium, 18
Merisca, 40
meropsis, Tellina, 39
Mesopleura, 45
messanensis, Ledella, 5
metodon, Protothaca, 37
mexicana, Chama, 29
mexicana, Crassinella, 20
mexicana, Ctena, 24
mexicana, Myonera, 56
mexicana, Polymesoda, 21
mexicana, Tindaria, 6
mexicana, Xylophaga, 51
mexicanum, Dendostrea, 14
mexicanus, Pitar, 34
mexicanus, Tryphomyax, 26
Mexicardia, 30
Microcardium, 31
Micromactra, 38
Miltha, 24
Milthinae, 24
mimus, Spondylus, 18
Minormalletia, 6
miraflora, Teredo, 52
modesta, Mulinia, 38
modesta, Transenella, 32
modestum, Cardium, 31
MODIOLINAE, 12
Modiolus, 12
moerchiana, Dreisseia, 22
Monia, 19
monotimeris, Pecten, 17
MONTACUTIDAE, 27
montereyi, Semele, 47
montezuma, Chione, 36
montezuma, Chionopsis, 36
mucronata, Diberus, 11
Mulinia, 38
multicostata, Anadara, 7

multicostata, Periglypta, 31
multicostata, Tucetona, 9
multiformis, Brachidores, 10
multiradiata, Cytherea, 32
multirugosus, Hinnites, 16
multirugosus, Pecten, 16
multispinosus, Pitar, 33
mundulus, Venus, 36
munita, Nucinella, 3
muris, Pseudopythina, 26
mutabilis, Arca, 6
mutabilis, Modiola, 10
MYACEA, 49
MYIDAE, 49
MYINA, 49
Myoforceps, 11
MYOIDA, 49
Myonera, 56
myrae, Halistrepta, 54
Myrakeena, 14
MYRAKEENINI, 14
Myteinae, 24
MYRTENIDAE, 24
Mysella, 27
MYSELLINAE, 27
Mytella, 10
MYTILACEA, 9
MYTILIDAE, 9
MYTILINAE, 9
MYTILOIDA, 9
Mytilopsis, 22
Mytilus, 9
nana, Cuspidaria, 49
nanus, Artemis, 34
nasuta, Corbula, 49
nasuta, Mactra, 38
Nautilus, 52
navicula, Donax, 44
Neaeromya, 26
neglecta, Venus, 35, 37
neglectus, Modiolus, 12
Neilo, 6
Neilonella, 6
NEILONELLIDAE, 6
Nemocardium, 31
Neobankia, 52
neoceanicus, Hyalopecten, 17
Neocyrena, 21
newcombei, Pododesmus, 19
newcombianus, Pitar, 33
newsomi, Pecten, 16
nicaraguana, Polymesoda, 21
nicobaricus, Spondylus, 18
nicoyana, Tellina, 40
Nioche, 36, 37
nitidissima, Siliquaria, 45
nitidus, Ensis, 48
nobilis, Cytherea, 34
Nodipecten, 17
noemi, Cypricardia, 37
Noetia, 8
NOETIIDAE, 8
NOETIINAE, 8
normalis, Mytilus, 10
Notochione, 37
Nototeredo, 52
novemcostatus, Hippagrus, 56
nucea, Aligena, 27
nucicola, Mesopholas, 51
nuciformis, Corbula, 49
Nucinella, 3
NUCINELLIDAE, 3
NUCINELLINA, 3
nucleator, Arca, 8
Nucula, 3
NUCULACEA, 3
Nuculana, 4
NUCULANACEA, 4
NUCULANIDAE, 4
NUCULANINAE, 4
NUCULIDAE, 3
nuculiformis, Crassinella, 20
NUCULINAE, 3
NUCULOIDA, 3
Nuculoma, 3
NUCULOMINAE, 3
nuttalli, Lucina, 23
nuttalli, Pinna, 13
nuttalli, Vulsella, 14
Nuttallia, 45
nuttallii, Nuttallia, 45
nux, Anadara, 7
obesa, Anadara, 7
obesa, Leporimetis, 41
obesulus, Donax, 43
obesus, Donax, 43, 44
obliqua, Aligena, 27
obliqua, Clementia, 34
obliqua, Felaniella, 25
obliqua, Orobittella, 28
obliqua, Solecardia, 27
obliqua, Tellina, 47
obliquus, Solen, 48
obliterata, Chione, 35
oblonga, Orobittella, 28
oblonga, Petricola, 35
oblongus, Pristes, 28
oboialis, Trachycardium, 31
obsoletus, Septifer, 10
obtusa, Bornia, 27
obtusa, Periploma, 53
obvolutus, Malleus, 14
ochracea, Cytherea, 32
ochracea, Lucina, 23

ochracea, Tellina, 40
 Odoncineta, 54
 oldroydii, Atrina, 13
 olivacea, Ledellina, 5
 olssoni, Chionopsis, 36
 olssoni, Rupellaria, 38
 Oppenheimopecten, 17
 orbella, Diplodonta, 25
 orbiculata, Arca, 8
 orbiculata, Bathyrarca, 8
 orbignyi, Limaria, 19
 orcutti, Bankia, 52
 orcutti, Sanguinolaria, 45
 oregonensis, Cryptomya, 49
 ornata, Saccella, 4
 ornata, Verticordia, 56
 ornatissima, Chionopsis, 36
 Orobittella, 27, 28
 OROBITELLINAE, 28
 Orthoyoldia, 5
 Ostrea, 15
 OSTREACEA, 14
 OSTREIDAE, 14
 OSTREINA, 14
 OSTREINAE, 15
 OSTREINI, 15
 OSTREOIDA, 14
 Ostreola, 15
 ovalina, Macra, 38
 ovalis, Mytilus, 10
 ovalis, Sanguinolaria, 45
 ovalis, Vesicomya, 22
 ovata, Gastrochaena, 50
 ovata, Glycymeris, 9
 ovulata, Corbula, 49
 oxia, Saccella, 4
 Pachydesma, 32
 pacifica, Arca, 6
 pacifica, Chama, 29
 pacifica, Crassinella, 20
 pacifica, Cumingia, 48
 pacifica, Limaria, 19
 pacifica, Semele, 48
 pacifica, Tellina, 39
 pacificus, Heterodonax, 45
 pacificus, Modiolus, 12
 Pacipecten, 17
 pallida, Mulinia, 38
 pallida, Semele, 46, 47
 pallidulum, Amygdalum, 12
 palliopunctatus, Choromytilus, 10
 palmeri, Abra, 48
 palmeri, Leptopecten, 17
 palmula, Saccostrea, 15
 panamense, Nemocardium, 31
 panamense, Trachycardium, 30
 panamensis, Adula, 12

panamensis, Bushia, 54
 panamensis, Cuspidaria, 55
 panamensis, Cyrena, 21
 panamensis, Dacrydium, 13
 panamensis, Donax, 42, 43
 panamensis, Gari, 44
 panamensis, Macoma, 41
 panamensis, Malleus, 14
 panamensis, Orthoyolida, 5
 panamensis, Pseudochama, 30
 panamensis, Solemya, 2
 panamensis, Tindaria, 6
 panamensis, Uperotus, 52
 panamina, Ennucla, 3
 Pandora, 52
 PANDORACEA, 52
 Pandorella, 52
 PANDORIDAE, 52
 Papphonotia, 35
 papyracea, Bornia, 27
 papyracea, Rhamphidonta, 27
 Papyridea, 30
 Paradonax, 44
 Parahyotissa, 14
 parallela, Petricola, 37
 Parapholas, 51
 parapodema, Cuspidaria, 55
 parcipictus, Pectunculus, 9
 parilis, Felaniella, 25
 parkeri, Cuspidaria, 55
 parmaleeana, Bellascintila, 26
 parmaleeana, Bellascintilla, 26
 Particoma, 51
 Parvilucina, 23
 patagonica, Acesta, 18
 patagonica, Cuspidaria, 55
 patheonensis, Arca, 8
 pauciradiata, Cytherea, 32
 payensis, Nucula, 3
 payensis, Pitar, 33
 pazensis, Solen, 48
 paziana, Semele, 46, 47
 pazianum, Nemocardium, 31
 peabodyi, Chione, 35
 PECTINACEA, 16
 pectinata, Cardiomya, 56
 pectinata, Pholadopsis, 51
 PECTINIDAE, 16
 PECTINNA, 16
 pectunculoides, Venus, 36
 pedernalense, Laevicardium, 31
 pedicellatus, Lyrodus, 51
 pedroana, Callista, 34
 pedroana, Cyathodonta, 54, 55
 pedroanus, Mytilus, 10
 Pegmapex, 25
 Pegophysema, 24
 pelagica, Limopsis, 9
 pellucida, Chama, 28, 29
 pellucida, Malletia, 6
 penascoensis, Adrana, 5
 penicillata, Plicatula, 15
 peninsulae, Basterotia, 28
 pentadactylus, Albimanus, 53
 Peplum, 18
 percea, Spondylus, 18
 perfragilis, Pitar, 33
 Periglypta, 31
 Periploma, 53
 PERIPLOMATICIDAE, 53
 perla, Poromya, 55
 perlabiata, Anadara, 7
 pernoides, Pododesmus, 19
 pernomus, Cyclopecten, 16
 Peronidia, 40
 perparvula, Divalinga, 24
 perplicata, Halicardia, 56
 peruanus, Tagelus, 45
 perulus, Oppenheimopecten, 17
 peruviana, Anomia, 19
 peruviana, Cyrena, 21
 peruviana, Galeommella, 26
 peruviana, Labis, 11
 peruviana, Nuculana, 4
 peruviana, Petricola, 38
 peruviana, Venerupis, 38
 peruvianus, Donax, 43, 44
 peruvianus, Tagelus, 45
 petalina, Donax, 43
 petallina, Donax, 43
 petitti, Venerupis, 36
 Petrasma, 2
 Petricola, 37
 Petricolaria, 37
 PETRICOLIDAE, 37
 pfeifferi, Solen, 48
 pfeifferi, Tichogonia, 22
 phillipsi, Bushia, 54
 Philobrya, 9
 PHILOBRYIDAE, 9
 Phlogocardia, 30
 Phlycticoncha, 53
 Phlyctiderma, 25
 phoebe, Phlyctiderma, 25
 PHOLADACEA, 50
 PHOLADIDAE, 50
 pholadidea, Sphenia, 49
 PHOLADINA, 50
 PHOLADINAE, 50
 PHOLADOMYOVIDA, 52
 Pholadopsis, 51
 Pholas, 50
 Pholas, macrostoma 50
 Phyllodella, 40

Phyllodina, 40
picta, *Chione*, 36
picta, *Timoclea*, 36
pictum, *Entodesma*, 53
pilsbryi, *Semele*, 46
pilsbryii, *Zirfaea*, 51
pinacatensis, *Venus*, 36
Pinctada, 13
Pinna, 13
PINNACEA, 13
PINNIDAE, 13
PINNINA, 13
Pisostrigilla, 42
Pitar, 33
Pitarella, 34
PITARINAE, 33
pitteri, *Pecten*, 17
Placunanomia, 19
PLACUNIDAE, 19
planata, *Modiolus*, 10
planetica, *Cardiomya*, 56
Planitivela, 32
planiusculum, *Periploma*, 53
planulata, *Spisula*, 39
planulata, *Tivela*, 32
Plectodon, 56
Pleurolucina, 23
Pleuromeris, 21
Plicatula, 15
PLICATULACEA, 15
PLICATULIDAE, 15
Pliohyotissa, 14
plumula, *Lithophaga*, 11
Plumulella, 52
Pododesmus, 19
Policordia, 56
polita, *Nuculana*, 4
Politoleda, 4
politus, *Tagelus*, 45
pollicaris, *Pitar*, 33
polyleptus, *Cyclopecten*, 16
polyleptus, *Delectopecten*, 16
Polymesoda, 21
pomatia, *Pecten*, 16
pompholyx, *Arca*, 8
ponderosa, *Dosinia*, 34
pontonia, *Jupiteria*, 4
porcella, *Corbula*, 49
Poromya, 55
POROMYACEA, 55
POROMYIDAE, 55
Portlandia, 5
Potiarca, 7
poulsoni, *Hinnita*, 16
princeps, *Spondylus*, 18
princeps, *Tellina*, 41
PRIONODONTA, 6

prismatica, *Striostrea*, 15
Pristes, 28
pristiphora, *Tellina*, 40
pristipleura, *Acrosterigma*, 30
procerum, *Trachycardium*, 30
producta, *Chama*, 29
projectans, *Lithodomus*, 12
prolongata, *Lucina*, 22
Promantellum, 19
Pronucula, 3
PROPEAMUSSIIDAE, 18
Propeamussium, 18
prora, *Tellina*, 40
PROTOBRANCHIA, 2
PROTOCARDIINAE, 31
Protothaca, 36, 37
Psammacoma, 41
PSAMMOBIIDAE, 44
PSAMMOBIINAE, 44
Psammotreta, 42
Pseudamussium, 18
Pseuderiphyla, 20
Pseudochama, 29
Pseudocyathodonta, 54
Pseudopythina, 26
pseudotulipus, *Modiolus*, 12
pseustes, *Cardiomya*, 56
Psiloteredo, 52
Pteria, 13
PTERIACEA, 13
PTERIIDAE, 13
PTERIINA, 13
PTERIOIDA, 13
PTERIOMORPHIA, 13
pubera, *Chionopsis*, 36
puelhana, *Ostrea*, 15
pulchella, *Martesia*, 51
pulchra, *Semele*, 47, 48
pulicaria, *Chionopsis*, 36
punctata, *Codakia*, 23
punctatostriatus, *Donax*, 43
punctatum, *Amphidesma*, 46
puntarensis, *Pododesmus*, 19
pura, *Dione*, 33
purpurascens, *Chama*, 29
purpurascens, *Semele*, 47
purpurasens, *Semele*, 47
purpuratus, *Brachidontes*, 10
purpurea, *Tellina*, 41
purpureochocolata, *Cytherea*, 32
purpurissata, *Chionopsis*, 36
PYCNODONTEINAE, 14
pyriformis, *Leda*, 4
Pythinella, 28
quadrangularis, *Isognomon*, 14
quadrata, *Cryptomya*, 49
quadratus, *Isognomon*, 14

Quendreda, 13
quentinensis, *Crassinella*, 20
quentinensis, *Semele*, 47, 48
quentinensis, *Thracia*, 54
quercinus, *Parahyotissa*, 14
quia, *Yoldia*, 5
radians, *Spondylus*, 18
radiata, *Carditamera*, 21
radiata, *Pandora*, 53
radiatus, *Donax*, 43, 44
Raeta, 38
randolphi, *Delectopecten*, 16
Rangia, 39
Rangianella, 39
Rasia, 8
reclusa, *Tellina*, 40
recognitus, *Perna*, 14
rectus, *Modiolus*, 12
recurvata, *Tellina*, 39
reeveana, *Barbatia*, 7
reeveana, *Cardita*, 21
reevei, *Donax*, 43
regularis, *Gari*, 44
regularis, *Semele*, 46
regularis, *Tellina*, 48
regulus, *Malleus*, 14
reinharti, *Anadara*, 7
reversa, *Noetia*, 8
Rexithaerus, 42
Rhomboidella, 11
rhynchoscuta, *Merisca*, 40
richthofeni, *Lucina*, 23
rickettsi, *Macoma*, 42
rigida, *Ventricolaria*, 32
riisei, *Tichogonia*, 22
riocaensis, *Petricola*, 38
robusta, *Petricola*, 38
Rochefortia, 28
rogersi, *Lithophaga*, 11
ropan, *Lithophaga*, 11
rosaceus, *Solen*, 48
rosea, *Corbula*, 49
rosea, *Pholas*, 51
rosea, *Semele*, 47, 48
roseus, *Pitar*, 33
rositae, *Pteria*, 13
rossmaessleri, *Tichogonia*, 22
rostae, *Barbatia*, 6
rostratus, *Donax*, 42
rothi, *Donax*, 43
rotundata, *Kellia*, 27
rubrolineatum, *Amphidesma*, 46
rubropicta, *Chama*, 29
rubropicta, *Semele*, 46
rubroradiata, *Psammobia*, 44
rubrotincta, *Mesodesma*, 47
rubrotincta, *Semele*, 46

ruderata, *Tapes*, 36
rudis, *Solen*, 48
rufipunctatus, *Malleus*, 14
rufoides, *Ostrea*, 15
rugosa, *Pinna*, 13
rugulosa, *Gastrochaena*, 50
Rupellaria, 37
rupicola, *Semele*, 47
rupium, *Amphidesma*, 47
rupium, *Semele*, 47
saavedrai, *Pseudochama*, 30
saccata, *Cyclinella*, 34
saccata, *Streptopinna*, 13
Saccella, 4
Saccostrea, 15
sajnahkaliensis, *Nausitoria*, 52
salanga, *Pitar*, 33
sallei, *Mytilopsis*, 22
salvadoricus, *Lioberus*, 11
sanctaerucris, *Phacoides*, 24
sanctiblasii, *Mactra*, 38
Sanguinolaria, 45
SANGUINOLARIINAE, 45
santarosae, *Erycina*, 28
santarosae, *Tellina*, 40
Sarepta, 5
Saturnia, 6
scaber, *Plectodon*, 56
SCAMBULINAE, 20
scapha, *Poromya*, 55
Scapharca, 8
schencki, *Nucula*, 3
Scissula, 40
sechuranum, *Entodesma*, 53
secta, *Macoma*, 42
Sectiarca, 7
secticostata, *Arca*, 7
Semele, 45, 47
SEMEЛИDAE, 45
semifusca, *Modiola*, 10
semilaevis, *Brachidontes*, 10
semiobliterata, *Dosinia*, 34
senticosum, *Trachycardium*, 30
septentrionalis, *Mytilus*, 10
Septifer, 10
serialis, *Cytherea*, 32
sericata, *Felaniella*, 25
sericeus, *Flabellipecten*, 17
serra, *Ostra*, 14
Serracorbula, 49
serrata, *Strigilla*, 42
serratissimus, *Spondylus*, 18
setosa, *Philobrya*, 9
Sheldonella, 8
silicula, *Modiola*, 12
siliqua, *Macoma*, 41
similaris, *Limatula*, 19

similis, *Anadara*, 7
Simomactra, 38
simplicissima, *Semele*, 46, 47
Simplistrigilla, 42
simulans, *Tellina*, 40
singleyi, *Cyclinella*, 34
sinuatus, *Mytilus*, 10
skoglundae, *Crassinella*, 20
Skoglundia, 54
smirna, *Tindaria*, 5, 6
smithi, *Poromya*, 55
Solecardia, 27
SOLECURTINAE, 45
Solecurtus, 45
Solemya, 2
SOLEMYACEA, 2
SOLEMYIDAE, 2
SOLEMYINA, 2
SOLEMYOIDA, 2
Solen, 48
Solena, 48
SOLENACEA, 48
SOLENIDAE, 48
soleniformis, *Adula*, 12
solida, *Arcopsis*, 8
solida, *Clementia*, 34
solida, *Hiatella*, 50
solidissima, *Cytherea*, 32
Solidula, 35
solidula, *Petriocola*, 35
sordida, *Chama*, 29
sowerbyi, *Donax*, 43
sowerbyi, *Semele*, 46, 47
sparsilineata, *Semele*, 47
spathulata, *Pholas*, 50
spatiosa, *Leiosoleus*, 12
spatiosa, *Protothaca*, 36
species, *Mysella*, 27
speciosa, *Corbula*, 50
speciosa, *Mytella*, 10
spectabilis, *Lucina*, 24
spectri, *Macoma*, 41
Sphenia, 49
SPHENIOPSIDAE, 50
Spheniopsis, 50
spiekeri, *Cardium*, 31
spinosa, *Chama*, 29
spinosa, *Haliris*, 56
Spinula, 5
SPINULINAE, 5
Spisula, 39
splendens, *Mytilus*, 12
splendidus, *Lioberus*, 11
SPONDYLIDAE, 18
spondylopsis, *Plicatula*, 16
Spondylus, 18
spongiophila, *Entodesma*, 53
Sportella, 26
SPORTELLIDAE, 28
spurca, *Cardita*, 21
squalida, *Megapitaria*, 34
squamosa, *Chione*, 36
squamosa, *Thracia*, 54
squamosa, *Timoclea*, 36
squamuligera, *Chama*, 29
stalderi, *Pitaria*, 34
staminea, *Protothaca*, 36
stearnsii, *Periploma*, 53
stearnsii, *Pseudopythina*, 26
stearnsii, *Vesicomya*, 22
sterna, *Pteria*, 13
strebli, *Arca*, 8
Streptopinna, 13
STRIARCIINAE, 8
striata, *Martesia*, 51
strigata, *Mytella*, 10
strigilata, *Tucetona*, 9
Strigilla, 42
Striostrea, 15
STRIOSTREINI, 15
striosum, *Amphidesma*, 45, 47
Strophocardia, 21
stultorum, *Tivela*, 32
Stumpiella, 12
suavis, *Vesicomya*, 22
subaequilateralis, *Protothaca*, 37
subdiaphana, *Compsomyax*, 34
subdola, *Nucinella*, 3
subelongatus, *Cardium*, 30
subimbricata, *Chione*, 35
sublaevis, *Pythinella*, 28
Submantellum, 19
subnodosus, *Nodipecten*, 17
suborbicularis, *Kellia*, 27
subquadrata, *Cyclinella*, 34
subquadrata, *Diplodonta*, 25
subquadrata, *Semelina*, 48
subrostrata, *Nioche*, 36
subrugosa, *Chione*, 35
substriatum, *Laevicardium*, 31
subtrigona, *Halodakra*, 28
subtruncata, *Barnea*, 50
subula, *Lithodomus*, 11
subventricosus, *Pecten*, 16
subviridis, *Lasaea*, 26
sugillata, *Venus*, 35
sulculosa, *Paphia*, 36
suprastrigata, *Nucula*, 3
suprema, *Diplodonta*, 25
tabogensis, *Semele*, 48
taeniolata, *Nucula*, 3
Tagelus, 45
tamurai, *Crenella*, 11
TAPETINAE, 35

Tedinia, 19
 teevani, Periploma, 53
 Tellidorella, 20
 Tellina, 39
 TELLINACEA, 39
 Tellinella, 40
 TELLINIDAE, 39
 Tellinidella, 41
 Temnoconcha, 42
 tenebrosus, Spondylus, 18
 tenuiaratus, Mytilus, 10
 Tenuicorbula, 50
 tenuirostris, Macoma, 42
 tenuis, Corbula, 50
 tenuis, Tellimya, 27
 tenuistriata, Pholas, 51
 tepocana, Abra, 48
 TEREDINIDAE, 51
 TEREDININAE, 51
 Teredo, 51
 tetrica, Lima, 18
 thaanumi, Codakia, 23
 THECODONTINAE, 28
 thermophilus, Bathymodiolus, 13
 Thestyleda, 4
 Thovana, 50
 Thracia, 54
 THRACIACEA, 53
 THRACIIDAE, 54
 Thyasira, 25
 THYASIRIDAE, 25
 THYASIRINAE, 25
 tibai, Solemya, 2
 tillamookensis, Pecten, 16
 Timoclea, 36
 Tinctora, 34
 tinctoria, Chama, 29
 Tindaria, 5
 TINDARIIDAE, 5
 tirgrinus, Malleus, 14
 titan, Dosinia, 34
 Tivela, 32
 tokunagai, Solemya, 2
 tokyoensis, Martesia, 51
 tortuosa, Semele, 46
 tortuosus, Pitar, 33
 Tosarca, 8
 townsendi, Teredo, 51
 TRACHYCARDINAE, 30
 Trachycardium, 30
 Transennella, 32
 transversus, Donax, 43
 trapezoidalis, Osteodesma, 53
 trapezoides, Anatina, 53
 triangulata, Polymesoda, 21
 tricarinata, Thyasira, 25
 trigonalis, Isorobitella, 28

trigonalis, Orobittella, 28
 Trigonocardia, 31
 Trigonulina, 56
 triradiata, Cytherea, 32
 triradiata, Venus, 35
 triserialis, Cytherea, 32
 troglodytes, Timoclea, 36
 Tropithaca, 37
 trossulus, Mytilus, 10
 truncata, Gastrochaena, 50
 truncata, Malletia, 6
 trunculus, Sphenia, 49
 Tryphomyax, 26
 tuberculosa, Anadara, 7
 tuberculosa, Atrina, 13
 tubulifera, Ostrea, 15
 Tucetona, 9
 tucilla, Eucrassatella, 20
 tucilla, Harvella, 38
 tulipa, Modiolus, 12
 tulipa, Ostrea, 15
 tumaca, Corbula, 49
 tumbezensis, Modiolus, 10
 tumbezensis, Mytella, 10
 tumbezensis, Pacipecten, 18
 tumbezensis, Tellina, 39
 tumbeziana, Cyathodonta, 55
 tumens, Chione, 35
 tumida, Sphaerella, 25
 tumida, Tapes, 37
 tumidior, Lithophaga, 11
 tunica, Pecten, 17
 turgida, Cardita, 21
 turgida, Tellina, 41
 typica, Rupellaria, 38
 ulloana, Tellina, 40
 ultima, Ledella, 5
 umbonata, Mysella, 27
 uncifera, Pandora, 52
 undatella, Chione, 35
 undatooides, Linga, 23
 undulata, Cyathodonta, 55
 undulata, Cymatoica, 41
 undulata, Raeta, 38
 Undulostrea, 15
 UNDULOSTREINI, 15
 UNGULINIDAE, 25
 unicolor, Pitar, 33
 unicolor, Spondylus, 18
 uniradiata, Cytherea, 32
 Uperotus, 52
 ursipes, Spondylus, 18
 valdiviana, Arca, 7
 valvulus, Solemya, 2
 vanattae, Mactra, 38
 variabilis, Chione, 36
 varians, Crassinella, 20
 Varicorbula, 50
 variegata, Amphidesma, 47
 variegata, Tellina, 39
 variegatus, Angulus, 39
 velata, Mactra, 38
 velero, Leptopecten, 17
 VENERACEA, 31
 VENERIDAE, 31
 VENERINAE, 31
 VENEROIDA, 19
 venosa, Chama, 29
 Ventricolaria, 32
 ventricosum, Amphidesma, 45, 46
 Venus, 32
 venusta, Petricola, 38
 venusta, Semele, 47
 verrucosa, Semele, 48
 verruculastra, Semele, 46, 47
 Verticordia, 56
 VERTICORDIACEA, 56
 VERTICORDIIDAE, 56
 Vesicomya, 22
 VESICOMYIDAE, 22
 Viaderella, 24
 victoriae, Spondylus, 18
 villosior, Asthenothaerus, 54
 vinaceus, Pitar, 33
 vincula, Malletia, 6
 violascens, Tagelus, 45
 virgo, Tellina, 40
 viridizona, Pteria, 13
 viridotincta, Psammotreta, 42
 vitreus, Cyclopecten, 16
 vitreus, Delectopecten, 16
 vogdesi, Oppenheimopecten, 17
 volucris, Cardita, 21
 vulneratus, Pitar, 34
 washingtoniana, Cryptomya, 49
 whiteavesi, Pecten, 16
 williami, Microcardium, 31
 williamsi, Mactra, 38
 willisi, Antigona, 34
 xantusi, Miltha, 24
 Xylophaga, 51
 XYLOPHAGAINAE, 51
 Yoldiella, 5
 YOLDIELLINEAE, 5
 YOLDIINAE, 5
 zacae, Tellina, 41
 Zemysia, 25
 zeteki, Bankia, 52
 zeteki, Mytilopsis, 22
 zeteki, Septifer, 10
 Zirfaea, 50
 zonalis, Limopsis, 9
 zorrita, Orobittella, 28
 zorritensis, Arca, 8
 zorritensis, Protothaca, 37

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